

MISSISSIPPI COASTAL ZONE MANAGEMENT PROGRAM



RESTRICTED AREA

MISSISSIPPI SOUND

73033

01082
COASTAL ZONE
INFORMATION CENTER

MISSISSIPPI
COASTAL
ZONE
MANAGEMENT
PROGRAM

PREPARED FOR
MISSISSIPPI MARINE RESOURCES COUNCIL

1 MARCH 1973

PREPARED BY
WESTINGHOUSE ELECTRIC CORPORATION
OCEANIC DIVISION

WESTINGHOUSE ELECTRIC CORPORATION
PROJECT STAFF

OCEANIC DIVISION

M. A. Ransone
Project Manager

C. Rutledge
Project Engineer

R. Dougan
Management Development

R. M. Sapp
Baseline Researcher

G. Ward
Legal Researcher

K. E. Greenhorn
Project Administrator

OCEAN RESEARCH LABORATORY

Dr. W. D. Clarke
Scientific Programs

Dr. J. Forns
Research Consultant

WESTINGHOUSE ELECTRIC CORPORATION
Ocean Research and Engineering Center
Annapolis, Maryland 21404

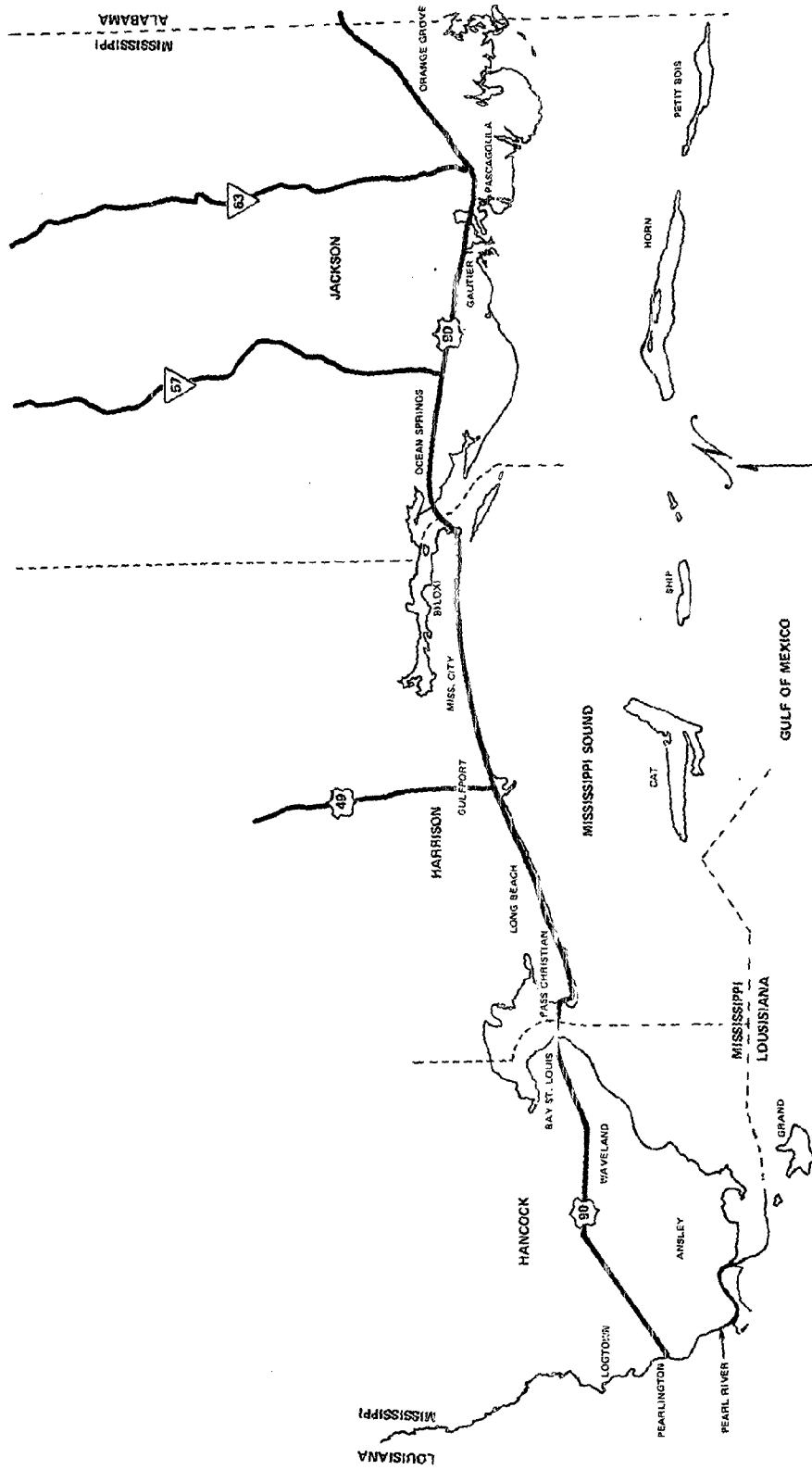
TABLE OF CONTENTS

Section		Page
<i>EXECUTIVE SUMMARY</i>		
1	Introduction	1
2	Current Situation	2
3	Mississippi's Objectives In The Coastal Zone	2
4	Management of the Marine Resources Council	3
5	Coastal Zone Management Plan Development	3
6	Development of the Marine Resources Council	4
7	Legislative Changes	5
<i>SECTION 1 – INTRODUCTION</i>		
1.1	The Coastal Zone Management Act	1-1
1.2	The Management Program Report	1-2
1.3	The Federal Budget for FY1974	1-3
<i>SECTION 2 – MISSISSIPPI'S OBJECTIVES IN THE COASTAL ZONE</i>		
2.1	The Opportunity for Economic Development	2-1
2.2	Providing the Means for Environmental Protection	2-2
2.3	Providing Central Focus for Coastal Zone Research	2-3
2.4	Resolving Conflicts in the Coastal Zone	
2.5	Coordinating Activities of Agencies in the Coastal Zone	2-4
<i>SECTION 3 – MANAGEMENT OF THE MARINE RESOURCES COUNCIL</i>		
3.1	Responsibilities	3-1
3.2	Organization	3-5
<i>SECTION 4 – COASTAL ZONE MANAGEMENT PLAN DEVELOPMENT</i>		
4.1	External Coordination	4-2
4.2	Legal Activities	4-4
4.3	Technical Activities	4-4
<i>SECTION 5 – GROWTH OF THE MARINE RESOURCES COUNCIL</i>		
5.1	Changes in Organization and Functions	5-1
5.2	Chronology of Transition	5-3
5.3	Administration and Estuarine Sanctuary Grants	5-4

TABLE OF CONTENTS (Continued)

Section		Page
<i>SECTION 6 – LEGISLATIVE CHANGES</i>		
6.1	Assignment of Wetlands Administration	6-1
6.2	Establishing MMRC as the Cognizant State Agency	6-1
6.3	Authority to Acquire Property	6-1
6.4	Authority to Regulate, Control, and Resolve	6-2
6.5	Re-alignment of Coastal Zone Management Activities	6-2
<i>APPENDIX A</i>		
	Task Statements for Management	A-1
<i>APPENDIX B</i>		
	Agencies Programs and Procedures	B-1
<i>APPENDIX C</i>		
	The Mississippi Gulf Coast	C-1
<i>APPENDIX D</i>		
	Visits and Calls	D-1
<i>APPENDIX E</i>		
	Reference Sources	E-1
<i>APPENDIX F</i>		
	Title III – Management of the Coastal Zone	F-1

[illegible]



EXECUTIVE SUMMARY

1. INTRODUCTION

The Mississippi Marine Resources Council has recognized the compounding problems of uncontrolled use of marine resources and growth in the coastal zone of Mississippi. Accordingly, the Council sought advice on establishing a Mississippi Coastal Zone Management Program, which is the motivation of this document.

This report recommends that the Mississippi Marine Resources Council continue its present activities of permit review, Sea Grant monitoring, and special projects. The Council is strongly urged to seek aggressively and early the responsibility for managing coastal zone wetlands through bills now before the Mississippi Legislature. It recommends immediately starting development of the Mississippi Coastal Zone Management Plan in accordance with the requirements of the Coastal Zone Management Act of 1972.

The Council should implement now a Citizen's Advisory Council to obtain guidance on the needs and aspirations of citizens regarding the coastal zone. Legislation in 1974 is recommended to:

- (1) Designate the Council unequivocally as the agency for coastal zone management in Mississippi;
- (2) Assign the Council powers and authority for regulation, control, and enforcement in the coastal zone and for resolving conflicts of use; and
- (3) Give MMRC authority to acquire lands, waters, and other properties through condemnation or other means.

In addition, MMRC is advised to seek legislation next year to reorient a wide scope of coastal zone functions, activities, and responsibilities under its single cognizance.

Suggestions are made for the future maturing of the Council's organization. Several major developments of the authority and responsibility of the Council are recommended with respect to marine sport fishing, power plant siting, boat and water safety, navigation, water quality, and oil spills for the period of 1975 - 1977. Beyond that time, suggestions are made for the Council to exercise disaster authority and to acquire and manage coastal zone sanctuaries and areas of particular interest or value.

2. CURRENT SITUATION

Mississippi's 70-mile long Gulf Coast is a region endowed with many marine resources, a number of natural assets ashore, and a favorable location -- all in a beautiful setting. This coastal zone, a small, but important, part of the state, is experiencing change. The industrial and residential developers, the tourist businesses, the shipping and shipbuilding interests, and the enterprises serving them are expanding. The growth is largely uncoordinated -- resulting in wasteful consumption of the state's resources, sometimes in the destruction of natural assets, and in conflicting uses of the coastal zone.

The Congress of the United States drafted and enacted the Coastal Zone Management Act of 1972 (PL92-583), seeking to stimulate the states to manage their own coastal affairs. This law provides for grants to the states: (1) to create their coastal zone management plans; (2) to administer the plan in the initial years; and (3) to acquire lands and waters for estuarine sanctuaries.

The Mississippi Marine Resources Council, feeling the urgency of the problem in its own state and observing the evolution of the Coastal Zone Management Act in Congress, recognized the simultaneous existence of a challenge and an opportunity. The Council contracted for assistance in initiating the development of Mississippi's coastal zone management program.

The proposed Federal Budget for Fiscal Year 1974 provides no funds for coastal zone management, and FY1973 funds are being withheld by the Office of Management and Budget. At this time, it is impossible to foresee what Congress will choose to include in this year's appropriations bills or the outcome of the expected confrontations between Congress and the White House over budget authority. As an alternative, however the State of Mississippi may obtain funding from the Department of Housing and Urban Development through Section 701 of the Housing Act of 1954 as amended (40 USC 461). This program was increased to \$110 million in the FY1974 budget request (vs. \$100 million in FY1973), and its scope is broad enough to encompass coastal zone planning. In any event, Mississippi must proceed now to establish its program for coastal zone management to avoid the painful economic and social consequences of uncontrolled growth and unguided exploitation on the Gulf Coast.

3. MISSISSIPPI'S OBJECTIVES IN THE COASTAL ZONE

The objectives of the State of Mississippi, and of the Mississippi Marine Resources Council in its role as focal agency for coastal zone management, are:

- To develop available resources for the economic benefit of Mississippi's citizens

- To provide environmental protection for the inhabitants and the natural resources
- To focus marine research on coastal problems
- To provide for resolution of conflicts in use
- To facilitate coordination of the activities of the many interests in the coastal zone

4. MANAGEMENT OF THE MARINE RESOURCES COUNCIL

Current responsibilities of the Mississippi Marine Resources Council include: (1) review for the State of Mississippi of permit applications to the U.S. Army Corps of Engineers; (2) coordination with the Universities Marine Center regarding Sea Grant projects; and (3) accomplishment of specific studies. The Council also is the executive representative of the State in matters regarding the Coastal Zone Management Act. It has been actively assisting members of the Mississippi Legislature in devising a wetlands bill.

A simple organizational structure (Figure 1) is recommended for 1973 and 1974 when the Council is engaged primarily in preparing the coastal zone management plan and performing its present duties. Personnel should be assigned for coastal zone management planning and project management, and part-time personnel, at least, should be provided for legal affairs and public affairs work. A citizens' Advisory Committee and a Technical Advisory Committee composed of leading representatives of the coastal region of Mississippi and of leading scientists and engineers to supply the expertise needed by the Council should be established promptly, drawing in part from the analogous committees of the Universities Marine Center.

5. COASTAL ZONE MANAGEMENT PLAN DEVELOPMENT

The Mississippi Marine Resources Council's first priority project is to prepare a coastal zone management plan in consonance with the requirements of the Coastal Zone Management Act. When the immediate submittal of the initial application is approved by the Secretary of Commerce and funds are available, the subsequent planning will be paid in part by a Federal grant. If Federal funds are not forthcoming, the Council should proceed independently at a pace compatible with the available State funding, omitting those steps required solely to justify applications for Federal funds.

Development of the plan has been divided in three interrelated work categories:

- (1) External coordination activities
- (2) Legal activities
- (3) Technical activities

Each category is subdivided into tasks which are displayed in Figure 2, which illustrates the work sequence and the relationships of the

tasks to one another. The schedule for the accomplishment of the tasks in three years is shown in Figure 3.

6. DEVELOPMENT OF THE MARINE RESOURCES COUNCIL

Concurrent with the development of the coastal zone management plan, the Mississippi Marine Resources Council will be undergoing a transition. It will be acquiring a broad spectrum of powers to review and approve projects which have impact upon the coastal zone. It will assume new responsibilities for administration and regulation of commercial and sport marine fishing and aquaculture, marine boating and water safety, coastal wetlands, artificial fish reefs, and estuarine sanctuaries. In time, it also may assume regulatory control of power plant siting, oil and chemical spills, and disaster abatement and rehabilitation in the coastal zone.

To fulfill these obligations, the Council's organization should mature as shown in Figure 4. The schedule of the recommended growth of the Council is outlined in Table 1.

**TABLE 1 SUGGESTED DEVELOPMENT OF THE
MISSISSIPPI MARINE RESOURCES COUNCIL**

FY1973	—	Legislation assigning the Council authority over wetlands in the Coastal Zone.
FY1974	—	Legislation declaring the Marine Resources Council as the designated agency for Coastal Zone Management in Mississippi with power to acquire property and control and resolve conflicts in uses.
	—	Legislation merging the functions of Marine Conservation Commission into the Council.
	—	Legislation assigning the Council full authority in the Coastal Zone for: <ul style="list-style-type: none"> • Boat and water safety • Sport fishing and hunting • Aquaculture • Oil and chemical spills
	—	Legislation granting the Council powers of review and approval of the projects and plans in the Coastal Zone or impacting them in matters of: <ul style="list-style-type: none"> • Recreation • Land development

- Marine minerals
- Coastal engineering
- Power plant siting
- Environmental quality
- Water resources
- Shipping, waterways, ports, etc.

- | | | |
|--------|---|--|
| FY1975 | — | Initiation of marine sport fisheries program |
| | — | Initiation of boat and water safety program |
| FY1976 | — | Initiation of power plant siting program |
| | — | Initiation of navigation and navigation aids program |
| | — | Initiation of water pollution and abatement program |
| | | Initiation of program of estuarine sanctuaries and areas of particular concern |
| FY1977 | — | Initiation of oil and chemical spill program |
| | — | Initiation of disaster abatement and rehabilitation program |

7. LEGISLATIVE CHANGES

No legislative changes are recommended for 1973 except to assign the Council authority over the coastal zone wetlands. This is a crucial step, establishing the Council as a regulatory agency giving it the opportunity to demonstrate ability, acquire expertise, and justify greater authority in subsequent years.

In 1974, the Legislature's designation of the Council as the Coastal Zone Management agency in Mississippi will endorse and strengthen the analogous assignment by the Governor. Legislation also will be required to give the Council authority to acquire and manage lands and property. For the Council to be effective, the Legislature must also give it authority to regulate and resolve conflicts in coastal zone uses. Other legislation required by the Council in 1974 relates to realignment of responsibilities and functions (Table 1).

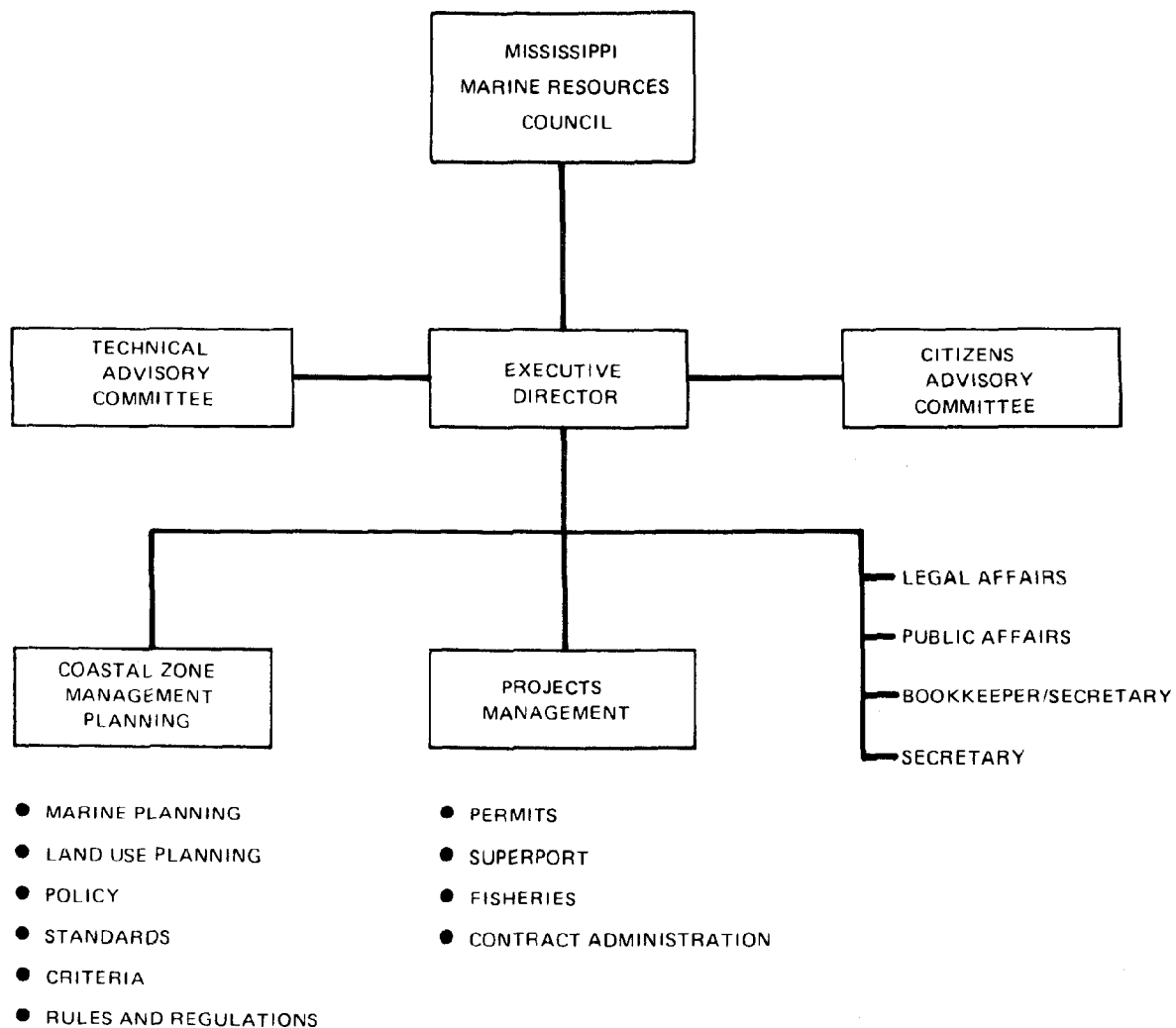
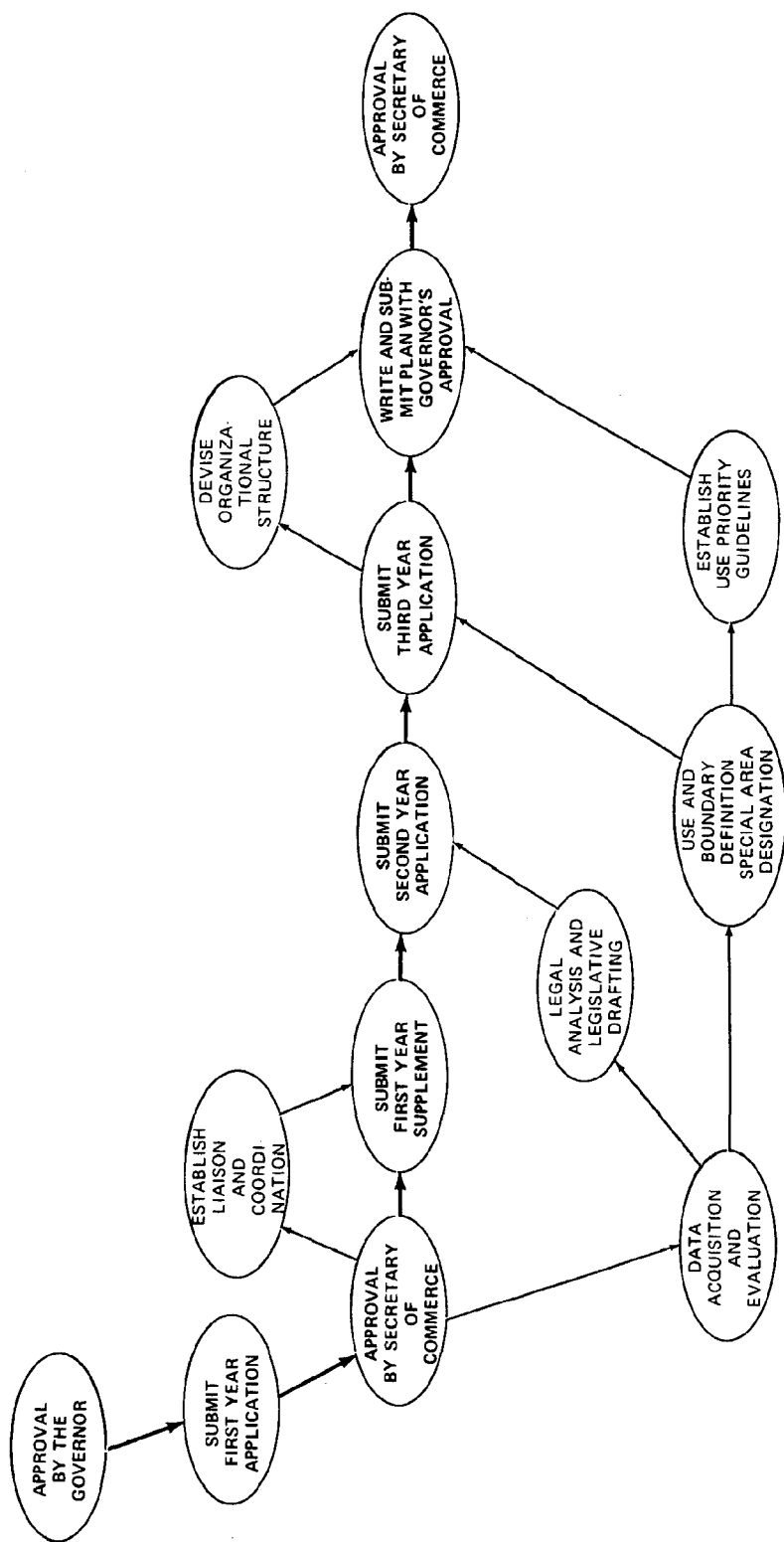


Figure 1 Recommended Mississippi Marine Resources Council Organizational Structure



73033A015

Figure 2 Executive Work Flow Diagram, Mississippi Coastal Zone Management Plan Development

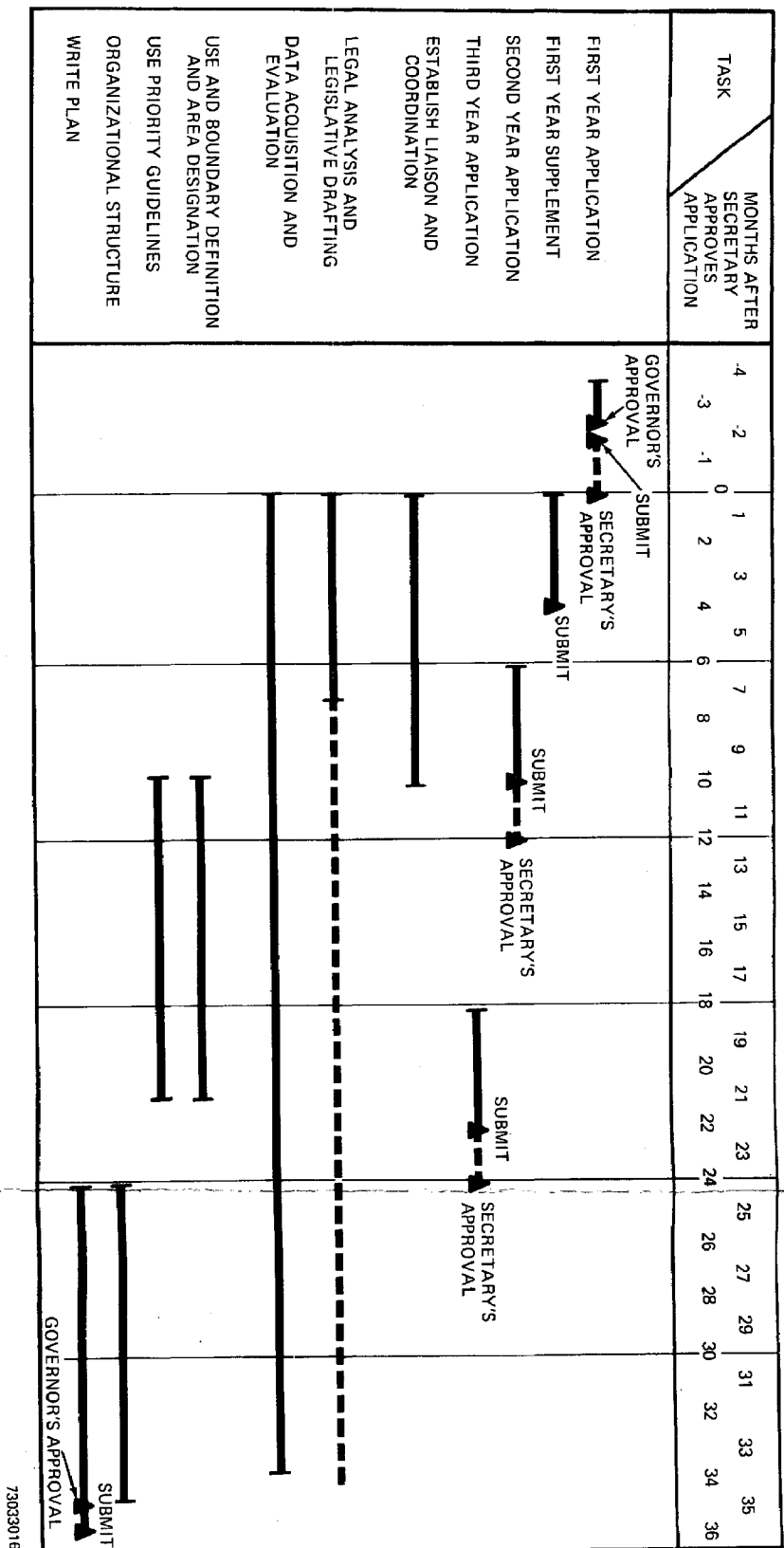
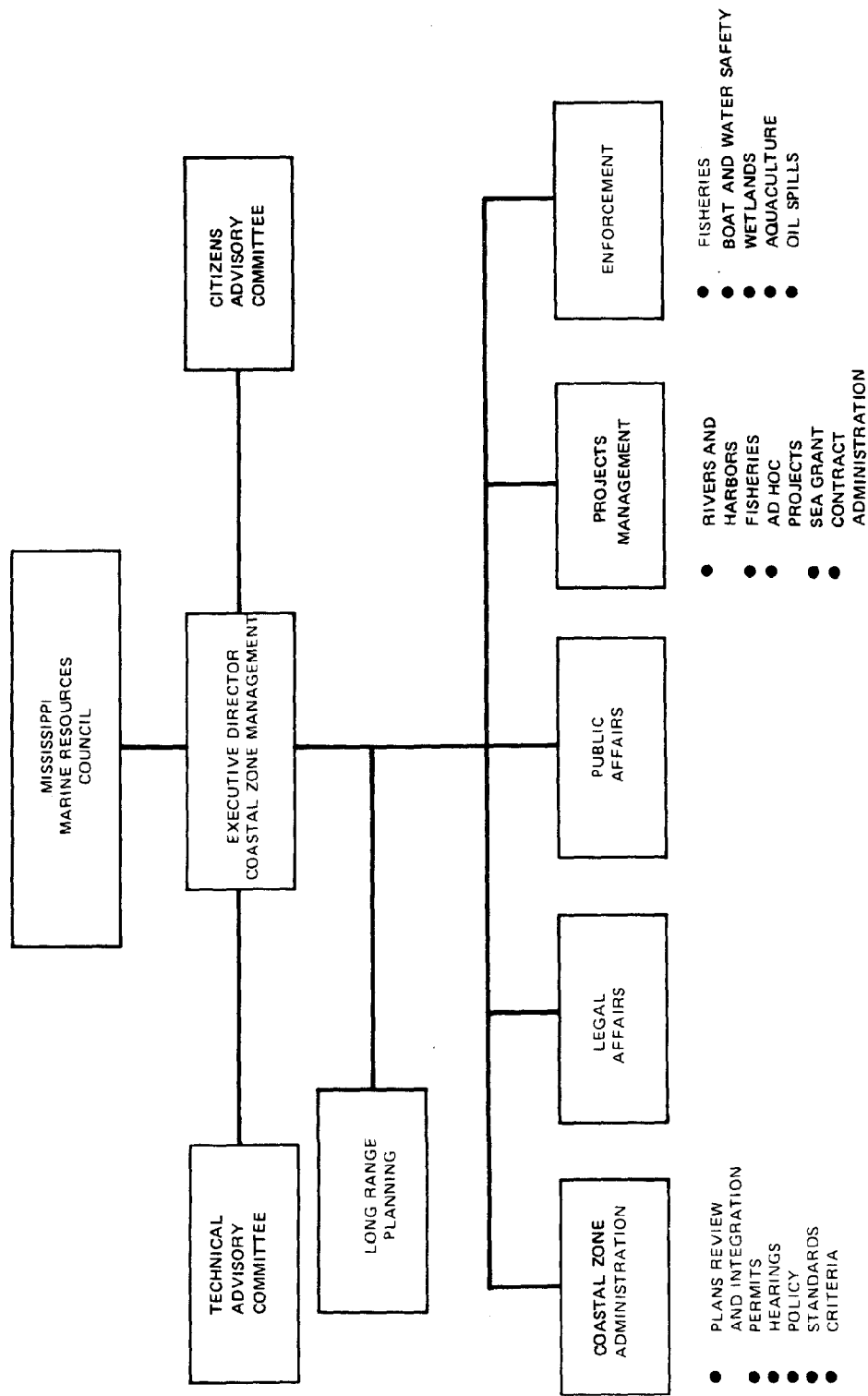
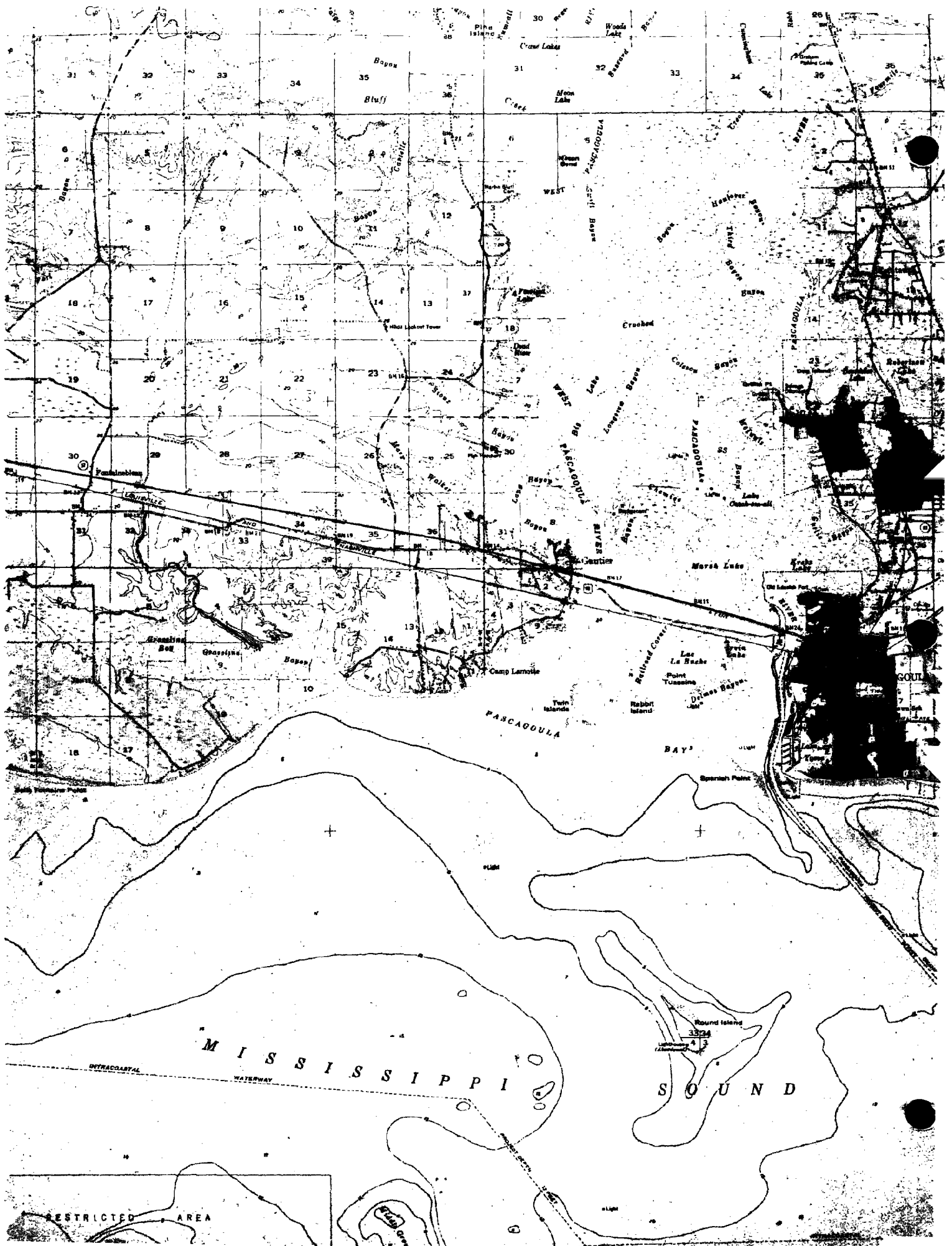


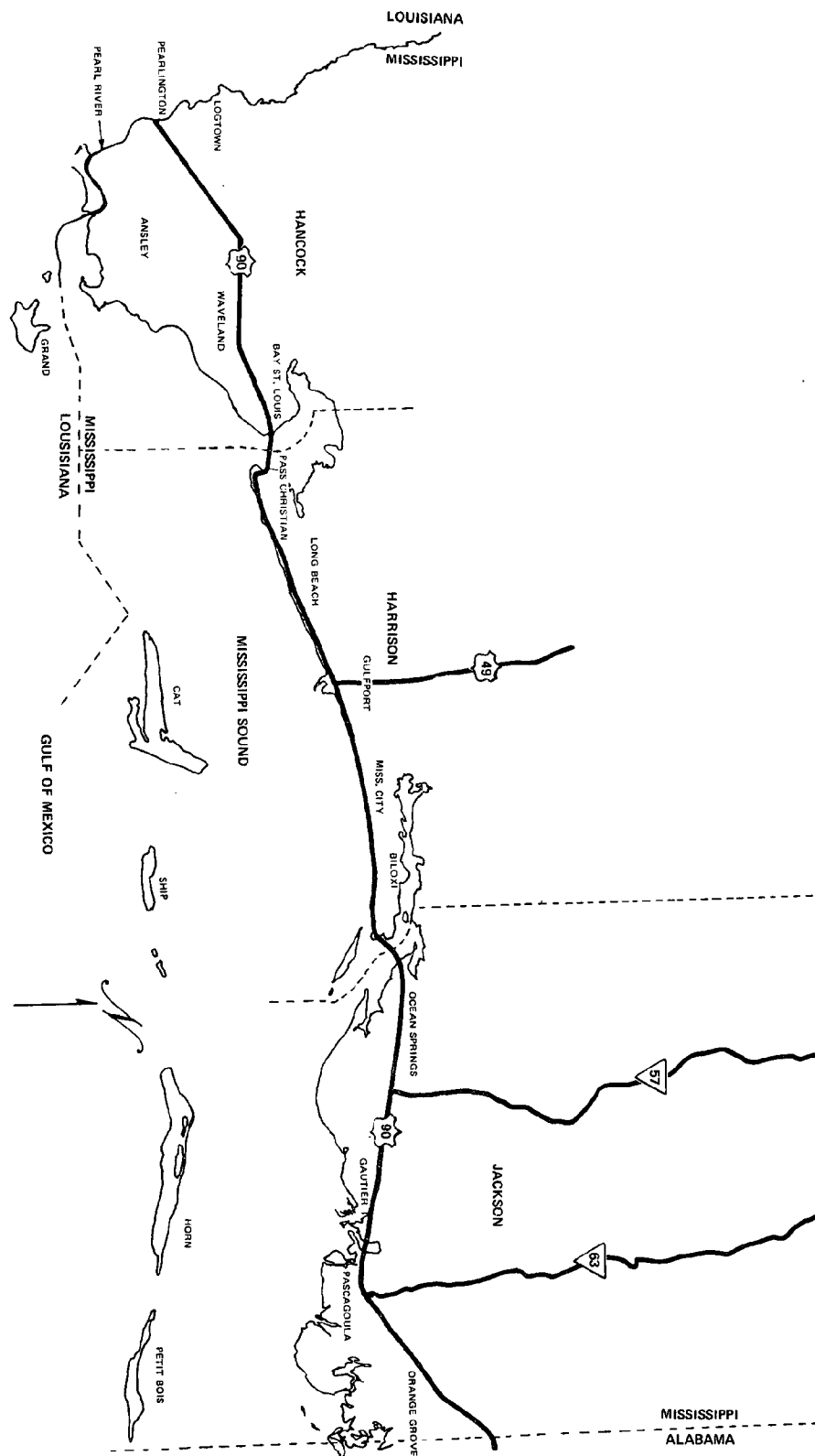
Figure 3 *Executive Schedule, Mississippi Coastal Zone Management Plan Development*



73033A009

Figure 4 Future Mississippi Marine Resources Council Organizational Structure





Section 1

INTRODUCTION

Mississippi's coastal zone on the Gulf of Mexico, though short, is an important and valuable asset of the State. It was known early in the 18th century as an attractive resort area and acquired such names as "Gold Coast" and "Riviera of America." For centuries, it has had a thriving fisheries industry and has been an important marine transshipping center. With World War II it became a military center because its climate is so favorable to training. Since, it has developed busy industries to the east -- especially shipbuilding -- and flourishing suburban communities for New Orleans' commuters to the west.

The winds of change are blowing. The tourist trades are expanding, and the growth of industry requires planning to avoid encroachment and confrontation. Modes of inland barging and ocean shipping are experiencing radical changes. The fisheries have grown to a bountiful climax only recently to begin declining. Our nation's energy crisis presses for an early exploitation of oil and gas resources in Mississippi's offshore areas.

Some control by the State in the use of the marine resources for the long term growth of the State of Mississippi is necessary. Mississippi must assure good conservation practices that will provide continued efficient yields of renewable resources, effective extraction of nonrenewable resources, and the best possible preservation of the environment while resolving the conflicts among the many users of the coastal zone. Although, a score of State agencies created from time to time have been assigned tasks and responsibilities in the coastal zone, they are not drawn together in a coherent organization with well-defined goals. The critically accelerated and highly competitive uses of the coastal zone now require such an organization and goals.

1.1 The Coastal Zone Management Act

Meanwhile, the Congress of the United States has passed the Coastal Zone Management Act of 1972 (PL 92-583)*, designating the Office of Coastal Zone Management of the National Oceanic and Atmospheric Administration in the U.S. Department of Commerce to administer it. The Act authorizes matching-fund grants to the coastal states: (1) to prepare plans for management of their coastal zones; (2) to administer the coastal zone management programs once approved; and (3) to acquire coastal zone lands and estuarine sanctuaries of particular interest. This

*See Appendix F

presents an opportunity to every coastal state. Refusing the opportunity invites the disaster of uncoordinated development, costly confrontation, and conflict among coastal zone users. There is the very real possibility that the Federal government may intervene indirectly and assume control of many of the coastal affairs in the State; certainly, individual Federal projects on Mississippi's coastal zone will proceed without complete coordination with the state -- possibly to the detriment of state, local, and private interests.

The Mississippi Marine Resources Council (MMRC) was created only a few years ago out of the same motivating forces that culminated in the Coastal Zone Management Act of 1972. Already performing functions of permit review, Sea Grant programs administration, and special projects sponsorship in Mississippi, the Council recognized the need to expand its activity into comprehensive coastal zone management. The passage of the Act provided the stimulus and the opportunity. So, the Council contracted for the preparation of a management program to enable it to provide vigorous leadership, effective coordination, and strong management of the oceanic and coastal areas of Mississippi. The objective was established to make use of Federal oceanic and environmental programs while working for efficient employment of the State's marine resources.

1.2 The Management Program Report

This report describes the management program recommended for the Council. It advises that MMRC continue its present activities of permit review, Sea Grant monitoring, and special projects. MMRC is strongly urged to seek aggressively earliest responsibility for managing wetlands of the coastal zone through bills now pending in the Mississippi Legislature. It also recommends immediately starting development of the Mississippi Coastal Zone Management Plan in accordance with the requirements of the Act. The proposed Federal Land Use Act (Senate Bill S-268) appears likely to be enacted this year, and Mississippi's Coastal Zone Management Plan must be compatible to avoid redundant and conflicting regulation or oversights in regulation.

The Council should implement now a Citizen's Advisory Council to obtain guidance on the needs and aspirations of citizens regarding the coastal zone. Legislation in 1974 is recommended to:

- (1) Designate MMRC unequivocally as the agency for coastal zone management in Mississippi
- (2) Assign MMRC powers and authority for regulation, control, and enforcement in the coastal zone and for resolving conflicts of use; and
- (3) Give MMRC authority to acquire lands, waters, and other properties through condemnation or other means

In addition, MMRC is advised to seek legislation next year to reorient a wide scope of coastal zone functions, activities, and responsibilities under its single cognizance.

Suggestions are made for future growth of the MMRC organization and staff. Several major expansions of the authority and responsibility of MMRC are recommended with respect to marine sport fishing, power plant siting, boat and water safety, navigation, water quality and oil spills for the period of 1975 thru 1977. Beyond that time, suggestions are made for MMRC to exercise disaster authority and to acquire and manage coastal zone sanctuaries and areas of particular interest or value.

Appendix A to this document, the Mississippi Coastal Zone Management Program, provides detailed task statements to guide the step-by-step development of the plan. The Council's coordination with other agencies, Mississippi participation in Federal programs, and pending Federal and State legislation are treated in detail in Appendix B. Appendix C describes the current status and problems of Mississippi's Gulf Coast. The sources of background information are presented in Appendix D (persons) and Appendix E (documents), and the Coastal Zone Management Act of 1972 is reproduced in its entirety in Appendix F.

1.3 The Federal Budget for FY1974

The Budget Message for FY1974 sent to the Congress by the Administration on January 19, 1973, indicated that the White House does not intend to fund the Coastal Zone Management Act of 1972. Consultation with personnel in the NOAA Office of Coastal Zone Management confirmed this and also revealed that grant funding for FY1973 will not be forthcoming from the Office of Management and Budget.

Despite this surprising development, the preparation of a Mississippi Coastal Zone Management Plan should not be deferred. The appropriations bills will not be passed by Congress for many months, and it is far too early to predict their content or the action of the White House when they are passed. Also, this year promises a significant confrontation between Congress and the President over budget powers. With or without a Federal grant, Mississippi cannot afford to wait. Delay will invite the agony and degradation of the Mississippi Gulf Coast through unordered growth and development. And delay will result in Federal programs in the area proceeding without reference to Mississippi requirements and intent.

There are other sources from which Federal funds may be obtained for pursuing coastal zone planning. Preliminary discussions with the NOAA Office of Coastal Zone Management revealed an excellent possibility that funds may be obtained from the Department of

Housing and Urban Development through Section 701 of the Housing Act of 1954 as amended (40 USC 461). The scope of this legislation is broad enough to encompass coastal zone planning, and the State of Mississippi already is receiving some grants under this law (Appendix B, Sec. 6).

Section 2

MISSISSIPPI'S OBJECTIVES IN THE COASTAL ZONE

The State of Mississippi has five major objectives in its coastal zone:

- To develop available resources for the economic benefit of Mississippi's citizens
- To provide environmental protection for inhabitants of the region and their natural resources.
- To focus marine research on coastal zone problems.
- To provide for resolution of resource usage conflicts.
- To facilitate coordination of activities of the many agencies involved in the coastal zone.

The Mississippi Marine Resources Council (MMRC) has been identified as the focal agency through which State objectives with regard to marine resources may be achieved. With this charter and the attendant responsibilities related to the Federal Coastal Zone Management Act of 1972 (the Act), the Council has the opportunity to pursue the State's objectives vigorously.

2.1 The Opportunity for Economic Development

The economic and social conditions in Mississippi's Gulf Coast region are favorable for rapid development. Wage scales are competitive with more intensively developed areas and the mild climate reduces both construction and business operating costs. A pool of trainable personnel exists, and labor problems are minimal.

While employment categories are diversified (see Appendix C), relatively little heavy industry currently exists. Tourism and government facilities provide major sources of State income and employment opportunities regionally, but there are disadvantages in heavy dependence on these two categories. Although tourism is growing, it is a seasonal business, subject to the vagaries of weather and clientele. Federal government facilities -- predominately Keesler Air Force Base, the National Aeronautical and Space Administration's Mississippi Test Facility (MTF), and the Navy Sea Bee Base -- are vulnerable to budget cuts in today's climate of national economy and, in addition, provide no property tax base. Shipyard and petroleum complexes in the Pascagoula area provide some balance, but as a whole the region appears to lack sufficient industry to meet the employment needs of citizens and economic needs of the State and local governments.

However, Mississippi's Gulf Coast region has unexploited resources that can be used to improve the economic balance. Undeveloped coastal land, navigable waterways, and sources of water for

industrial processes and human consumption are valuable assets that attract industry. Moreover, the fact that the region is relatively undeveloped, makes the area a desirable place to live for workers and businessmen. Therein lies the dichotomy of development versus resource conservation and the need for a rational basis for economic development.

The Mississippi Marine Resources Council, with representation from a cross section of coastal zone interest, is in an advantageous position to provide this basis and foster development for the benefit of the entire region.

2.2 Providing the Means for Environmental Protection

Mississippi as a whole, and the coastal zone in particular, has not suffered the degree of environmental degradation of some other more highly industrialized regions. And while economic development is generically considered to be desirable, there is a parallel and perhaps equally pervasive concern for maintaining the quality of life to which Gulf Coast residents are accustomed. In a very real sense, environmental quality is a resource that may be exploited in a way analogous to agricultural or forestry resources. Crops may be grown on the same land year after year by rotation, replenishment of nutrients, and irrigation. Likewise, air, water, and undeveloped space may be used and enjoyed as long as the capacity of the system to absorb waste or recover from physical damage is not exceeded.

Aside from purely aesthetic aspects, environmental quality directly impacts the state's economic bases, and the reciprocal is also true. Tourism is certainly affected by environmental quality, and in turn can affect the environment by litter, automobile-related pollution, and crowding. Commercial fisheries are affected by contaminants in or damage to wetlands, nursery grounds, or feeding areas, and they can degrade the environment with effluents from packing houses and fishing boats or with unsightly facilities.

The impact of heavy industries on the adjacent air, land, and water is recognized and in many cases regulated by various state and Federal agencies. The impact of impaired environment on industry is not so generally appreciated. Aside from desirable living surroundings for employees and employers, industries must sometimes locate (or relocate) on the basis of available supplies of uncontaminated air and water, and land with suitable characteristics.

Thus, it may be essential to economic development, as well as to aesthetic considerations, to protect and maintain environmental quality.

Existing regulatory bodies such as the state and Federal health departments, Air and Water Pollution Control Commission, the

Federal Environmental Protection Agency, and local zoning commissions are involved presently in the process of protecting certain elements of the environment as they relate to the health and well being of the citizens of the State. The health and well being of living (or nonliving) marine resources are not so carefully protected.

Oyster bars are closed to fisherman when coliform bacteria concentrations exceed levels considered to indicate potential danger to human beings. But little is done to prohibit contaminants potentially injurious to the shellfish themselves, if there is no attendant hazard to people. Similarly, water quality standards are set for waters to be used by people for drinking, swimming, or fishing -- but not for such uses as heat exchange, dye manufacture, or other industrial process.

Clearly, there is a need to establish protective mechanisms for the resources that are important to development of the coastal zone, if such development is to proceed with desirable diversity. The establishment of MMRC is an important step towards administration of such mechanisms. The Council's charter to develop and protect the Mississippi's marine resources provides the focus and authority to begin a management program. It is recognized that too little is known of physical, biological, and chemical interactions in coastal zone ecology to embark on a comprehensive program of regulation immediately. This should not delay management procedures which can be implemented now. Scientific research focused directly on coastal zone problems will be necessary to provide continuing validity of such regulation in the future.

2.3 Providing Central Focus for Coastal Zone Research

Scientific research to provide a basis for management decisions is an appropriate state concern. In particular, the Universities Marine Center has contributed to the necessary knowledge bank in the normal course of educational activities and as consultants to such agencies as the Marine Conservation Commission and MMRC. Research in the classical sciences has been, and undoubtedly will continue to be, an important function of the Center. But, even more important to the state is applied, multidiscipline research on specific problems emerging in the coastal zone as a result of population pressure, increased industry, and natural calamities such as Hurricane Camille. This research should include not only physical and biological sciences, but economics, sociology, and health integrated properly to yield meaningful results for the resource manager.

The significance and utility of research needed for management is directly influenced by the degree of coordination of the various contributing elements. Unfortunately, due to parochialism and the lack of motivation, money, or time, the work of individual

researchers often tends to diverge from, rather than converge towards needed solutions. In order that research funds and the time and energy of the participants may yield the maximum benefit, coordination is necessary. The MMRC should provide such coordination for research related to coastal zone management problems.

This is not to say that MMRC should assume a dictatorial role in its relationship with research organizations. Enthusiastic cooperation will be more productive for all concerned than subservience. None-the-less, firm guidance is required to assure that resources are properly focused. Recognition of the need for this guidance at the state level will expedite organization of and results from scientific research.

2.4 Resolving Conflicts in the Coastal Zone

One of the primary responsibilities of a state coastal zone management agency will be the resolution of resource usage conflicts. Concurrent claims by industrial and residential developers, conservationists, and scientists on undeveloped or unexploited resources should be settled in a way which accommodates the maximum diversity of users without exceeding the capacity of the system. The concept of multiple use, while simple in theory, is exceedingly complex in the practice. The pressures of economic needs, aesthetic considerations, public health, and political realities can force the issues in a way inimical to the environment and the very users it is meant to benefit, if no system of arbitration is available above the local level.

In such a system the mediator must have both the proper authority and the knowledge necessary to render intelligent, nonpartisan decisions in the face of informed vested interests. Only an agency intimately involved in resource management can perform this function adequately. The Council, having the state's authority for management and the research resources to provide the necessary knowledge, could act as mediator in these conflicts.

2.5 Coordinating Activities of Agencies in the Coastal Zone

Section 2 of the MMRC enabling legislation includes, as a function of the Council, coordination of all plans of other agencies of the state, other states, the Federal government, and private agencies engaged in marine science and resource development as these plans impact the State of Mississippi. In practice, since the coastal zone -- however it is ultimately defined -- will include portions of a number of political subdivisions, this task will become increasingly significant as the Coastal Zone Management Plan is developed and implemented.

There are some 20 Mississippi state agencies which, by virtue of their charter, have some association with the coastal zone. Add to this similar agencies in adjoining states plus a dozen or so Federal agencies, and the task seems monumental. In fact, however, the number of agencies which will have significant impact and with which the Council will have to interface regularly, is much smaller. Table 2-1 summarizes these agencies and their applicable activities. This table is not meant to be inclusive or exclusive, but simply to indicate the general scope of activity. Appendix B, Section 1, provides more detail on their general functions.

TABLE 2-1 COASTAL ZONE ACTIVITIES

ORGANIZATION	LAND USE AND DEVELOPMENT	LIVING RESOURCES EXPLOITATION	LIVING RESOURCES CONSERVATION	NON-LIVING RESOURCES EXPLOITATION	NON-LIVING RESOURCES CONSERVATION	SCIENTIFIC AND ACADEMIC	ECONOMIC RESEARCH AND DEVELOPMENT	POLLUTION CONTROL AND ENVIRONMENTAL PROTECTION
<u>STATE</u>								
MARINE CONSERVATION COMMISSION		Commercial Fisheries Regulation and Enforcement						
UNIVERSITIES MARINE CENTER			Technical Advisory		Technical Advisory	Research and Education		Technical Advisory
AGRICULTURE AND INDUSTRY BOARD	Technical Assistance			Technical Advisory			Planning, Technical Assistance, Research	
BOARD OF TRUSTEES, INSTITUTE OF HIGHER LEARNING						Management		
STATE PORT AUTHORITY	Port and Harbor Development Planning and Management						Ports and Harbors	
AIR AND WATER POLLUTION CONTROL COMMISSION			Technical Advisory		Technical Advisory		Technical Advisory	Regulation, Enforcement Technical Assistance
STATE OIL AND GAS BOARD				Regulation, Technical Advisory				
<u>REGIONAL</u>								
GULF REGIONAL PLANNING COMMISSION	Planning, Technical Advisory, Coordination						Planning, Technical Advisory	
<u>LOCAL</u>								
JACKSON COUNTY PLANNING COMMISSION	Planning, Technical Advisory						Planning	
JACKSON COUNTY PORT AUTHORITY	Planning, Technical Assistance						Planning	
HARRISON COUNTY DEVELOPMENT COMMISSION	Planning, Technical Assistance						Industrial Development Technical Assistance	
HANCOCK COUNTY PORT AND HARBOR COMMISSION	Planning, Technical Assistance						Port and Harbor Development	

TABLE 2-1 COASTAL ZONE ACTIVITIES (CONT.)

ORGANIZATION	LAND USE AND DEVELOPMENT	LIVING RESOURCES EXPLOITATION	LIVING RESOURCES CONSERVATION	NON-LIVING RESOURCES EXPLOITATION	NON-LIVING RESOURCES CONSERVATION	SCIENTIFIC AND ACADEMIC	ECONOMIC RESEARCH AND DEVELOPMENT	POLLUTION CONTROL AND ENVIRONMENTAL PROTECTION
FEDERAL								
DEPARTMENT OF COMMERCE		Commercial Fisheries Technical Assistance	Marine Resources Management		Marine Resources Management	Research, Public Information	Technical Assistance	Research
DEPARTMENT OF INTERIOR	Land Use Act (Proposed) Management		Sports Fish and Game Management	Water resources management, forests and parks	Technical Advisory, Forests and Parks Management	Research, Public Information	Technical Advisory	Technical Advisory
NATIONAL SCIENCE FOUNDATION						Research		Research
U.S. ARMY CORPS OF ENGINEERS	Environ. Impact Review and Approval			Waterways development management	Technical Advisory	Research	Research, Technical Advisory	Technical Advisory
ENVIRONMENTAL PROTECTION AGENCY	Technical Advisory		Technical Advisory			Research	Technical Advisory	Regulation, Enforcement, Technical Assistance, Research
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT	Technical Advisory, Planning							
PRIVATE								
MISSISSIPPI WILDLIFE FEDERATION	Technical Advisory		Public Advocate Technical Advisory		Public Advocate Technical Advisory	Public Information on Conservation		Technical Advisory

Section 3

MANAGEMENT OF

THE MARINE RESOURCES COUNCIL

With the passage of the Coastal Zone Management Act of 1972 (the Act), the Mississippi Marine Resources Council (MMRC) faces a major task in the development and subsequent administration of a comprehensive management plan for the Mississippi coastal zone. The intent of the Congress of the United States for that plan is that it should give priority to national objectives, the desires of the State of Mississippi, and especially the wishes of the people of Mississippi over the narrower interests of the individual entrepreneur, developer, or industrialist.

While it is recognized that intelligent use of coastal resources can result in enormous benefits for all concerned, it has also been well established that thoughtless exploitation of the resources of the land and waters can result only too easily in benefits for a few accompanied by devastation for the remainder. This result, which is a particular threat to national resources as intrinsically valuable as the Mississippi Gulf Coast, can occur readily if the state does not act to assure that the public interest is adequately represented in the exploitation of this productive region.

To provide for this public overview of development activities in the coastal zone, this management plan is designed to provide for integration of the existing activities of MMRC with the expanded responsibilities required of it by the Act. A high degree of close public participation is included to assure responsiveness of the plan to the public needs and desires.

3.1 Responsibilities

3.1.1 Permit Review

MMRC already is engaged actively in coordinating, for the State of Mississippi, the review of permit applications to the Corps of Engineers. At present, the only state agency having licensing authority over projects for which such permits are required is the Mississippi Air and Water Pollution Control Commission, which is primarily concerned with the protection of air and water quality. Other state agencies and institutions, however, have vested interests which may be affected significantly by the subject of such applications. They also have professional personnel well qualified to evaluate the impact on their areas of interest in coastal zone affairs. Some of these agencies are listed in Table 2-1.

To satisfy these broader interests of the State, MMRC has implemented the following procedure:

1. Public notice describing the proposed project is transmitted to MMRC by the Corps of Engineers.
2. MMRC reviews the application and, if feasible, makes an on-site inspection.
3. The public notice is circulated to appropriate state agencies for impact evaluation and comment concerning their special fields of interest.
4. Comments and recommendations from state agencies are transmitted to MMRC for integration into a single final report.
5. The final report is submitted to the Corps of Engineers; copies are sent to those state agencies participating in the review and to the Coordinator of Federal-State Programs.

3.1.2 Sea Grant Coordination

The Council has established a good working relationship with the Universities Marine Center (UMC) in the administration of the Sea Grant Program. Continuation of this relationship is enhanced by the ex officio presence of the Executive Director of MMRC on the Council of the Director of the Universities Marine Center and on the Sea Grant Review Board. It is expected that, as MMRC becomes more active in its areas of prime responsibility, it will become correspondingly more active in identifying research and development tasks appropriate to the Sea Grant Program and the unique resources of UMC. (The Universities Marine Center will be the primary marine science consultant and research agency for MMRC.)

This can be expected to be particularly true with the Coastal Zone Management program. In the course of development and administration of the program, numerous deficiencies in knowledge will be identified -- especially with respect to the marine environment -- which seriously limit the application of intelligent management of coastal zone resources. This potential lack of knowledge is recognized in the Act and by the NOAA Office of Coastal Zone Management. Thus, even though the Act does not anticipate extensive research and development programs in the development of the management plan, it is expected that areas requiring further information will be identified and included in other programs -- especially the Sea Grant Program -- for orderly and timely exploration. As refined data become available, it is expected that the Coastal Zone Management plan will be suitably modified to accommodate the increased data base.

3.1.3 Coastal Zone Management

The Coastal Zone Management Act of 1972 provides for the development and administration of plans by coastal states. The Act provides two-thirds matching fund grants for as many as three years for development of a management plan. Further, two-thirds matching fund grants are authorized for administration of the plan following its approval by the Secretary of Commerce (Appendix F).

Administration of the plan following approval will require legislation to provide powers not presently possessed by MMRC, including the powers to:

- Regulate land and water use
- Control development in the coastal zone
- Resolve conflicts among competing uses
- Acquire property interests

These powers are not made mandatory at the time of initiating the planning process nor at the time of qualifying for the management plan development grants for the first three years. The Act permits an evaluation of existing legislation and local capabilities to determine the best mechanism for providing the above powers to implement the management plan. The Act also requires only that these capabilities be provided through any one or a combination of the following techniques:

- State establishment of criteria and standards for local implementation, subject to administrative review and enforcement of compliance.
- Direct state land and water use planning and regulation
- State administrative review for consistency with the management program of all development plans, projects, or land and water use regulations (including exceptions and variances thereto) proposed by any state or local authority or private developer, with power to approve or disapprove after public notice and opportunity for hearings.

Mississippi should not wait until the Coastal Zone Management Plan is complete to implement the required legislation, even though the Act does not require it immediately. The Act implies, and the Office of Coastal Zone Management stresses, that administration of the coastal zone program should not await the results of research programs to answer all possible questions with respect to the coastal zone. Further, if requirements of the plan are publicly disclosed far in advance of the implementation of controls, a rush to beat the deadline could defeat the basic purpose of the plan. Therefore, the authority to administer the plan should be available to MMRC as early as possible to permit its implementation as controllable elements are developed.

The steps required in development of the coastal zone management plan are discussed in Section 4 and detailed in Appendix A. This is deemed a crucial area for immediate implementation by MMRC, in the light of its legislative charter and the urgent need for comprehensive planning for the judicious development of Mississippi's coastal resources.

3.1.4 Wetlands

The MMRC has already been active in exploring legislation for the preservation of wetlands, having recognized the important role that the wetlands and their resources play in the state's development.

The 86,000 acres of wetlands in Mississippi are essential in sustaining the food chains of the commercially important oyster, shrimp, crab, and finfish species. The wetlands provide flood protection, perform silt absorption, and aid in pollution control. They also buffer wave action and erosion, serve as an important oxygenation mechanism, and provide brood ground for fish and other forms of marine life.

Wetlands in Mississippi have been destroyed in the past, and remaining wetlands are threatened with destruction to make way for economic development along the Gulf Coast. Several bills have been introduced into the legislature to provide control over the modification and the destruction of these remaining wetlands. However, considerable uncertainty exists at this time as to which agency should be assigned responsibility for wetlands administration. Since these lands are critically important to the marine environment and are unquestionably included in the definition of the coastal zone, MMRC should make every effort to assure that administration of wetlands is firmly assigned the MMRC as the coastal zone management agency in Mississippi.

This necessity is further accented by the fact that the Coastal Zone Management Act of 1972 authorizes funds for matching grants for acquiring, developing, and operating estuarine sanctuaries. For this purpose, additional effort will be required to identify lands for consideration as sanctuaries, to manage their acquisition and development, and to provide for their continuing administration.

3.1.5 Projects

A major objective for MMRC is to encourage the economic development of the Mississippi Gulf Coast. The coastal zone management plan will provide a national framework for such development. Moreover, it will be a major force in assuring in the process of such development that Mississippi does not lose sight of the need for ecological balance, the wise use of resources, and the overall quality of life for the citizens of the state.

As specific programs are proposed to further this economic development, questions inevitably will arise with respect to technical feasibility, economic viability, and possible adverse effects on the environment. In programs privately sponsored and financed, the first two normally would not concern MMRC; although, in projects having delicate or exact requirements, some guarantee of successful completion or restoration should be required. For publicly financed programs, however, all three questions apply.

Thus, to avoid major misapplication of financial and physical resources, MMRC must have the capability to resolve these questions through the execution of projects such as:

- Demonstration projects to show the advantages of particular technology and techniques (e.g., shrimp aquaculture, new approaches to fisheries management, sedimentation control, etc.).
- Pilot projects to verify economic feasibility and to assess environmental impact (e.g., artificial fishing reefs, fresh water flushing, etc.)
- Studies to assess technical feasibility, economic feasibility, and environmental impact (e.g., the current Superport study, offshore oil exploration and production, data collection and evaluation, wetlands and marine resources inventories, fisheries industry evaluation, etc.)
- Research projects to provide new data for management decision-making.

3.2 Organization

The organization proposed here is oriented toward the current year and the immediate years beyond. In this period, MMRC will be concerned primarily with program development and with coordination of the efforts of other agencies. These activities are in complete consonance with MMRC's existing legislative charter. Even within this context, the major effort of MMRC is seen as the preparation of a coastal zone management plan in a manner conforming to Mississippi's total needs and aspirations. At the same time, the plan will maintain coherence with the interests and needs of the entire Gulf Coast region and the nation as a whole.

As the plan is developed and as legislation required to implement the plan is enacted, the character and major activities of MMRC will change correspondingly. While the previously existing MMRC responsibilities for coordination and program review will continue unabated, administration of the plan will entail major new responsibilities in the regulation of land and water uses and in the resolution of conflicts among competing uses. Property acquisition, development, and continuing management could assume significant proportions in MMRC activities when responsibilities for estuarine sanctuaries and wetlands administration are assigned to them.

For the immediate future then, the major operations of MMRC should consist of its present activities in permit application review, coordination with UMC regarding Sea Grant projects, and participation in such projects as the Superport Study. To this should be added the initiation of the program for the development of the Mississippi coastal zone management plan (Section 4).

Initially, there must be an office established for Coastal Zone Management Planning. As the plan develops, additional staffing will be required for the execution of the programmed tasks. As the timing appropriate for public participation in the development of the plan is established, based upon the achievable budget and staffing levels, further differentiation of the Mississippi coastal zone management office will be required. Two additional offices should be created: Public Affairs and Legal Affairs. During this interval, an additional office for Projects Management will also be required to provide a management focus for projects identified in the course of plan development and for others identified by the Council. Thus, the organization illustrated in Figure 3-1 is proposed for MMRC for this critical period.

The Citizens Advisory Committee is specifically proposed as a mechanism to encourage the high degree of public participation in planning and administration envisioned in the Act. This committee will consist of at least eight members from the public at large to provide a cross section of the varied interests of the coastal zone community. Every effort should be made to appoint highly motivated individuals who will provide informed, intelligent guidance to the executive director. Members should be appointed by the MMRC on the recommendation of the executive director. There should be representatives from banking, industry, fisheries, tourist, and other commercial interests. Strong representation is required from the public sector, particularly persons concerned with conservation and the quality of life for Gulf Coast residents and visitors.

This mechanism for increased public participation is currently being used with considerable success by the Universities Marine Center in the Sea Grant program. The Center also has provided for more focused public participation by establishing task forces of interested citizens to review specific problem areas. While not specifically included in the proposed organization, consideration should be given to establishing such task forces and to reviewing the results of applicable UMC groups, as the coastal zone management plan is developed and as specific problem areas emerge. Consideration should be given to including some of the members of the UMC committees in MMRC's advisory committee.

The Coastal Zone Management Planning Office will report to the Executive Director and will be directly concerned with the development of the plan (Section 4). It will provide coordination of the entire program and execution of all tasks

except those specifically delegated to other organizations or to other segments of MMRC. A considerable part of the Executive Director's activities will be concerned with coordination of planning with the NOAA Office of Coastal Zone Management and other Federal and State agencies. A Technical Advisory Committee of at least three professional people with experience drawn from the fields of public administration, law, land use planning, oceanography, biology, and systems engineering will be required to support the Executive Director in these specialties.

The Projects Administration Office will continue the present MMRC activities in permit application review and coordination. As the coastal zone management plan develops and as specific research and development programs and projects are identified, this office will be responsible for their administration and/or execution. This will be accomplished partly by proposals to the Universities Marine Center for Sea Grant programs to satisfy scientific research needs. The recommended goal is to increase significantly the percentage of Sea Grant research related to coastal zone management problems, perhaps 10 percent per year until about 60 percent of Sea Grant programs are conducted in direct support of coastal zone management needs. Projects requiring specific expertise not available within MMRC or UMC will be executed under contract to appropriate consultants. Additionally, within the range of capabilities and manpower of MMRC, some projects will be executed directly.

Projects Management particularly should have the capability for conducting economic analyses and costs benefit studies within its own staff. More extensive projects may well require contracting to other agencies. MMRC, however, must acquire sufficient technical expertise to permit adequate control of such projects. By virtue of his position as an ex-officio member of the Sea Grant Review Board, the Executive Director of MMRC is already in a position to provide a large measure of coordination between the Sea Grant program and the particular research needs for coastal zone management. Staffing for this office will require two professional employees with experience in contracts and grants administration, economics, oceanography, biology, or systems engineering.

The Legal Affairs Office will be concerned initially with the legal analysis and development of required legislation tasks (see Section 4) in support of the development of the coastal zone management plan. Neither a full-time position nor expertise in the law is required for this phase, if the services of an appropriate practicing attorney are available for occasional consultation. As MMRC becomes more actively involved in actual administration of the plan, the demands on this office will increase significantly, and the full-time services of a qualified attorney could be required.

The Public Affairs Office may not be required for the first 12 to 18 months. Scheduling of public meetings, providing information, and other dealings with the public at large during this period could be handled by the secretarial staff with the guidance of the Executive Director. Beyond this time, however, the demands on this office can be expected to grow, requiring the services of a full-time staff member.

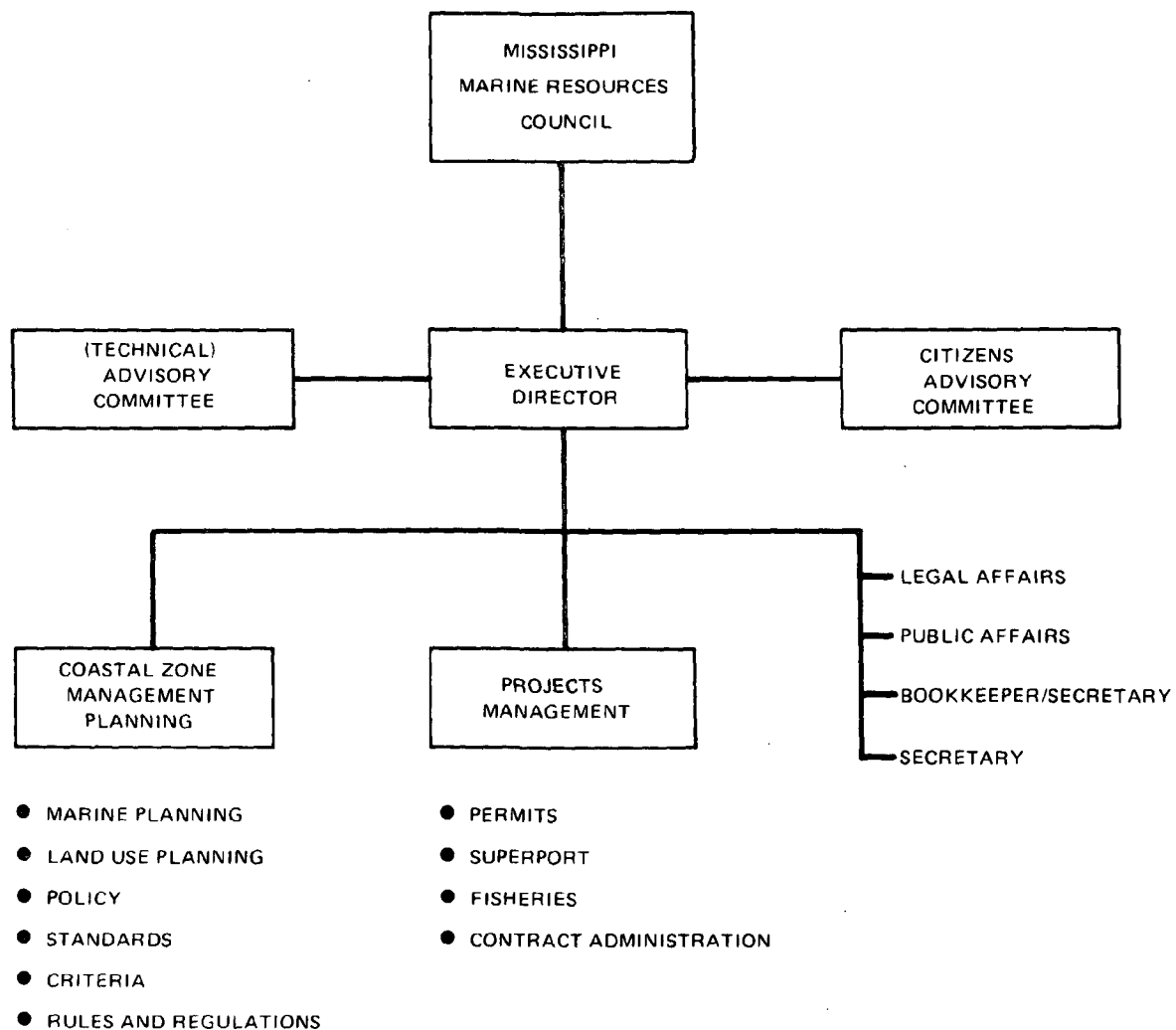


Figure 3-1 Recommended MMRC Organizational Structure

Section 4

COASTAL ZONE MANAGEMENT PLAN DEVELOPMENT

The Coastal Zone Management Act of 1972 (the Act) authorized -- but did not appropriate -- development grant funds for the coastal states, anticipating up to three years for development of the states' coastal zone management plans. Additional funds were authorized for grants for administration of these plans, subject to approval by Secretary of Commerce.

The resource requirements and schedule for accomplishment of the tasks defined in this section are matched to the requirements of the Act. It should be recognized that at the time of this writing, the NOAA Office of Coastal Zone Management had not issued formal guidelines for management plan development. Thus, this plan is based on the words of the Act itself, supplemented with informal advice obtained through interviews with the Director and other personnel of the NOAA Office of Coastal Zone Management. When formal guidelines are issued, it can be anticipated that relative emphasis on requirements may change and that the addition of specific new tasks may be necessary to satisfy specific requirements and regulations issued by the NOAA Office of Coastal Zone Management.

The development effort has been structured in three interrelated activity areas, based on the character of the effort required in the particular task. These activity areas as expressed in the Work Breakdown Structure (Figure 4-1) are:

- External Coordination Activities
- Legal Activities
- Technical Activities

It is recognized that every project must have an administration and support activity to provide for competent management, cost control, and schedule monitoring. These are part of the standing functions of MMRC organization as presented in Section 3 and are not repeated as tasks here.

The Work Flow Diagram (Figure 4-2) shows the main interrelationships of each task and the sequence in which tasks must be accomplished. Progress is geared primarily to annual grant applications, and according to the provisions of the Act, the time of active preparation of the Mississippi Coastal Zone Management Plan is restricted to three years. This is reflected in the Schedule (Figure 4-3), which shows the time-phase relationships of all the tasks.

The individual tasks are discussed briefly in the pages that follow and are treated in detail in Appendix A, Task Statements for Management Plan Development.

Should funds not become available through NOAA's Office of Coastal Zone Management but are available from some other Federal agency (e.g., Department of Housing and Urban Development), the tasks in the Grant Applications Task Group may be modified accordingly. If no Federal funds are available and the State of Mississippi provides all the funds for development of the coastal zone management plan, the Grant Applications Task Group will be cancelled.

It appears quite likely that the proposed Federal Land Use Act (Senate Bill S-268) will be enacted this year with only minor modifications. Development of the Mississippi Coastal Zone Management Plan must be pursued with Senate Bill S-268 in mind, making the Plan as compatible as possible with what is anticipated to be the final content of the bill.

4.1 External Coordination

The character of the relationships between the coastal zone management agency and external agencies at all levels is certainly one of the most important elements to be considered in the development of the coastal zone management plan. For effective management of the coastal zone, good working relationships must be established with a number of Federal and State agencies; with local governments of affected cities and counties; and with a variety of regional commissions, districts, and planning agencies. And, the Federal Coastal Zone Management Act of 1972 requires that the plan be developed and administered with the full participation of the public.

To satisfy these requirements, the following task groups and tasks* have been identified for execution during the development of the plan:

PA - External Coordination

PA1 - Grant Applications Task Group

PA1A - First Year: Actually performed before plan development begins, this task is to prepare the

*Tasks have been designated by an arbitrary four-character designator in which the first character (P) indicates the Coastal Zone Management Plan project. The second character (A, B, or C) indicates the work category, the third (1, 2, 3, etc.) indicates the task group, and the fourth (A, B, C, D, etc.) indicates the individual task.

application for first year funding. It must provide for designating MMRC the official state agency for coastal zone management, for summarizing Mississippi's coastal zone activities, for designing a preliminary management program, and for identifying other pertinent agencies.

PA1B - First Year Supplement: Upon approval of the first grant application by the Secretary of Commerce, the Mississippi Coastal Management Plan Development Project begins. Within 120 days a supplement to the application must be submitted giving the program design in greater detail and presenting a detailed work program.

PA1C - Second Year: This reviews and updates the previous applications, reports progress, identifies problems and constraints, re-evaluates goals and objectives, and re-examines the program design.

PA1D - Third Year: This follows the procedures of the second year application. It also identifies coastal zone boundaries, provides a process for definition of permissible land and water uses, and states the criteria for designating areas of particular concern.

PA2 - Coastal Zone Agency Coordination Task Group

PA2A - Agency Identification: This identifies and describes local, state, and Federal activities and authorities having impact on the coastal zone.

PA2B - Federal Areas Coordination: This establishes continuing coordination with Federal agencies administering coastal zone areas which are exempt from the coastal zone management of Mississippi.

PA2C - Regional, State, Local Coordination: This task establishes continuous coordination with regional, state, and local agencies concerned with coastal and marine matters in Mississippi.

PA2D - Public Coordination: This provides for public hearings on coastal zone management as the development of the plan proceeds.

PA2E - Continuing Liaison: This provides continuing liaison with the Office of Coastal Zone Management, the Mississippi Legislature, and other significant agencies not directly involved in coastal zone management.

4.2 Legal Activities

The Coastal Zone Management Act of 1972 requires the creation of an essentially new state agency with significant authority for control over land and water uses and other powers beyond those presently residing with the Mississippi Marine Resources Council. To assure satisfaction of the requirements of the Act, the following legal activities' tasks must be accomplished:

PB - Legal Activities

PB1A - Legal Analysis: This task analyzes the status of Mississippi with respect to legal authority to perform the functions necessary for effective coastal zone management.

PB2A - Legislative Drafting: This task correlates the legal deficiencies with the organization of coastal zone management to provide the legislative changes needed for an effective management program.

4.3 Technical Activities

These groups of tasks represent the central thread in the assessment of Mississippi's problems and needs in coastal zone management and in the development of the management plan in content and structure to address those problems and needs effectively. Although nine tasks have been identified, it should be recognized that in the course of development of the plan, additional tasks may be found necessary to the formulation of the plan. In addition, as the available data are reviewed, it is expected that a number of data collection and analysis subtasks will be identified to correct deficiencies in the data.

The tasks which have been identified as essential to completion of the initial coastal zone management plan are:

PC1 - Planning Data Management Task Group

PC1A - Data Acquisition: This task provides for the acquisition of data and information pertinent to coastal zone management from all sources.

PC1B - Data Evaluation: This task provides for review of the data and information received for applicability and adequacy, and it identifies deficiencies that must be corrected.

PC2 - Area Management Task Group

PC2A - Boundary Definition: This provides for establishing a viable and realistic definition of the Mississippi coastal zone responsive to the needs of and the situation in the state.

PC2B - Use Definition: This similarly provides for establishing definitions of permissible land and water uses in Mississippi's coastal zone.

PC2C - Designation Procedures: This task is to devise and establish the procedures for designating areas of specific interest for preservation or restoration, such as the estuarine sanctuaries.

PC2D - Area Designation: This task provides for actually accomplishing the inventory and for designating the areas of specific interest.

PC2E - Priority Guidelines: This provides for creating and establishing guidelines on the priorities among uses of land and water areas in the coastal zone.

PC2F - Organizational Structure: This provides for describing the organizational structure necessary for carrying out the management plan.

PC3 - Management Plan Task Group

PC3A - Plan Synthesis: In this task, all the outputs of the many tasks are combined into one comprehensive draft of the plan for subsequent publication, approval, and implementation.

PC3B - Documentation: This provides for editing, printing publishing, and distributing the completed plan as approved by the Governor of the State of Mississippi.

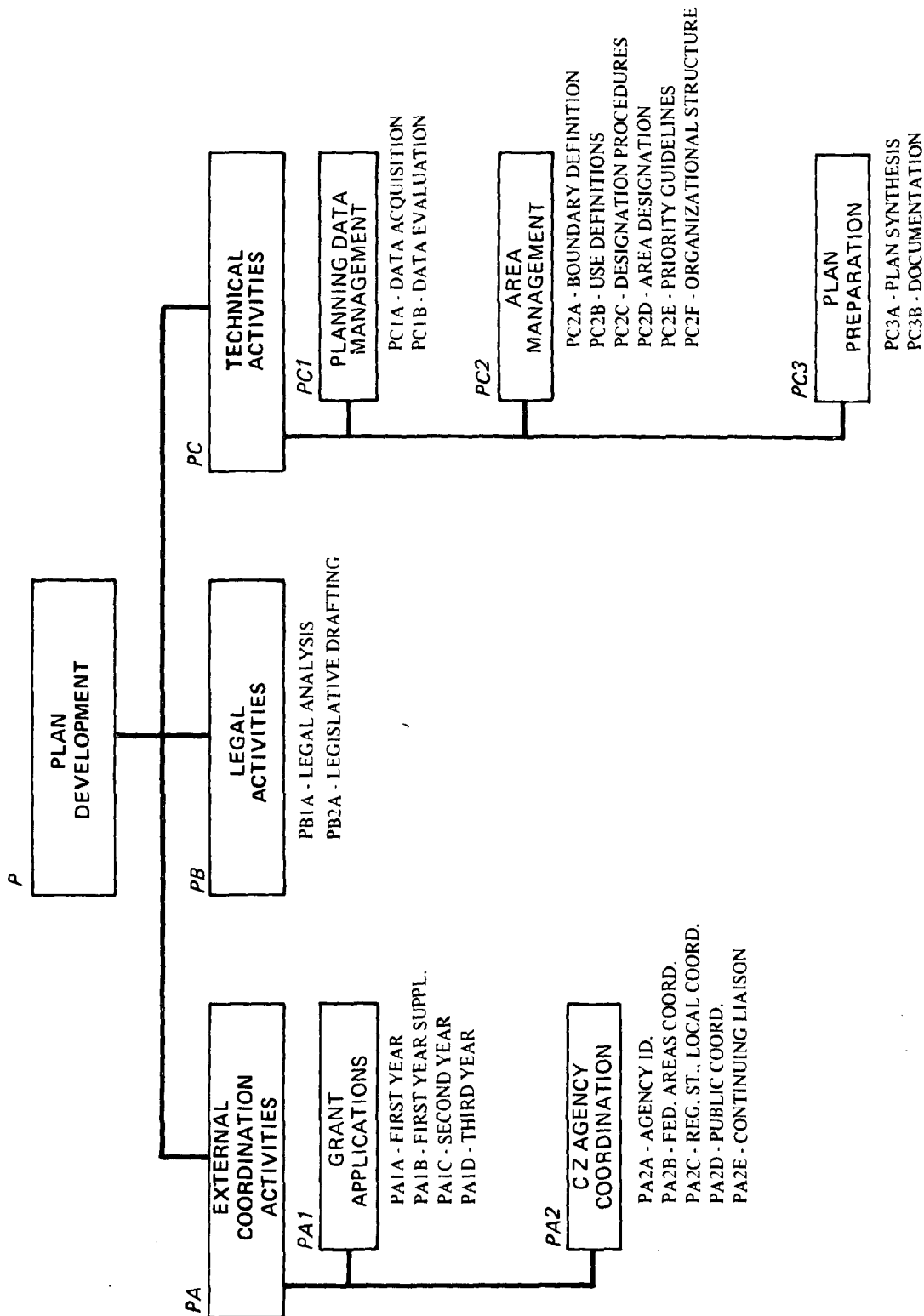


Figure 4-1 Work Breakdown Structure Mississippi Coastal Zone Management Plan Development

73033A002

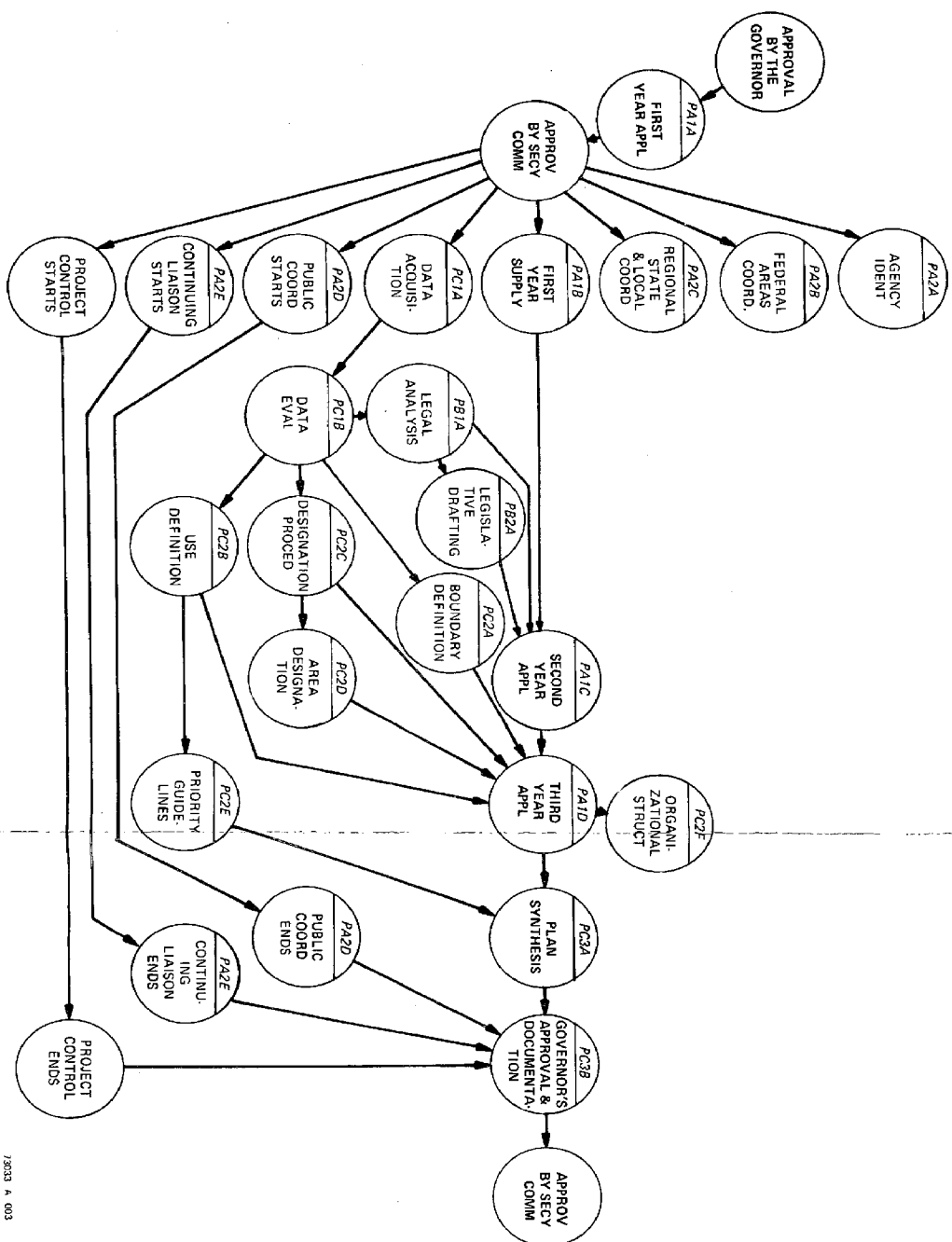
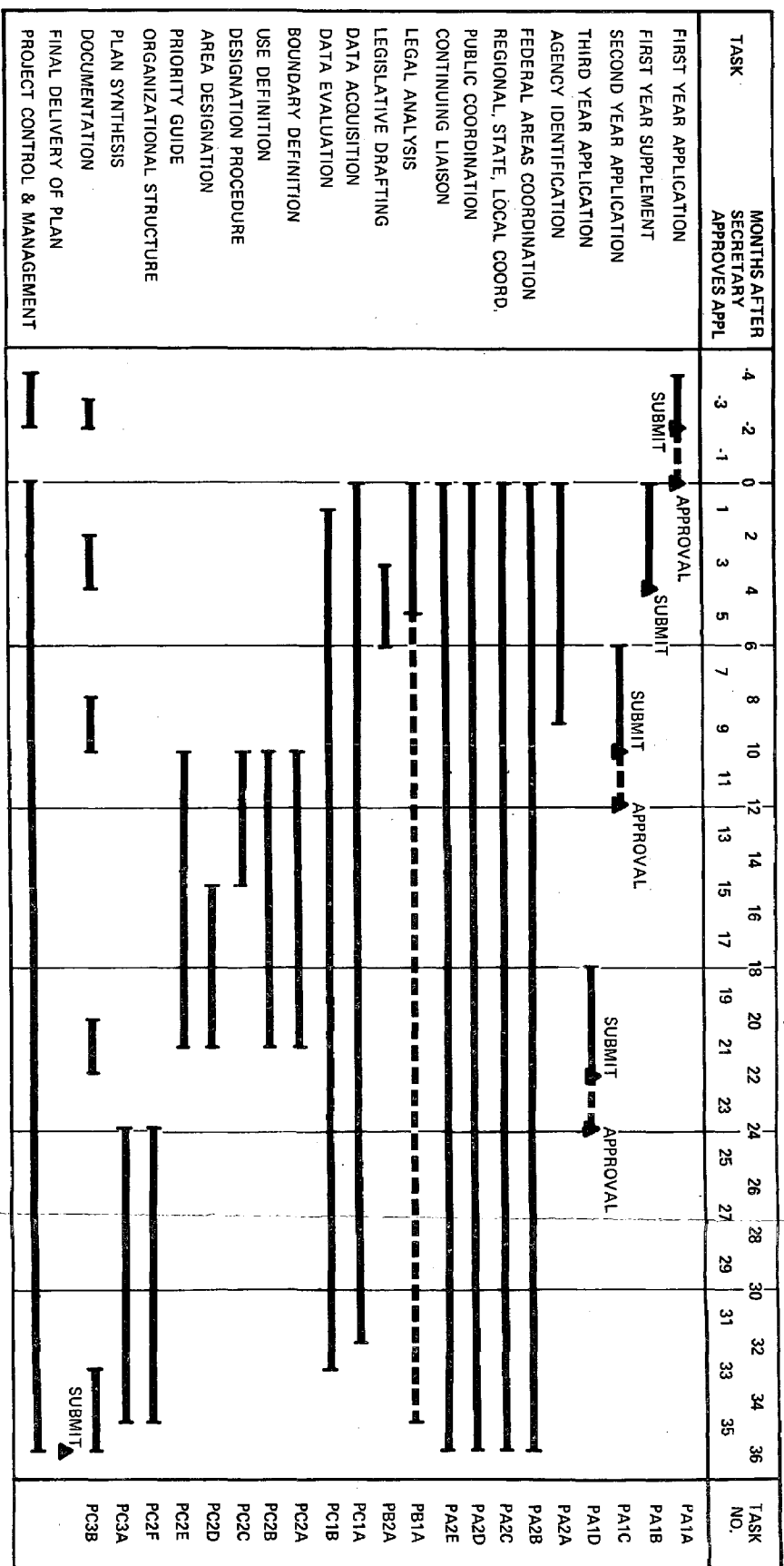


Figure 4.2 Work Flow Diagram Mississippi Coastal Zone Management Plan Development



73033-A-004

Figure 4-3. Schedule Mississippi Coastal Zone Management Plan Development

Section 5

GROWTH OF THE MARINE RESOURCES COUNCIL

The accelerating development of the coastal zone management plan and the concurrent transition to formal administration of the plan will produce the largest single change in Mississippi Marine Resources Council (MMRC) management. This transition will begin with the Mississippi Legislature in 1974 enacting the enabling legislation to provide the powers required by the Coastal Zone Management of 1972 (the Act) for administration of the plan. Although, at the time of enactment, the plan will not be complete and will not have been approved by the U.S. Secretary of Commerce, it will be essential to begin exercising the administrative and control powers provided. At this time, MMRC will acquire more of the character of a quasi-legal regulatory agency, of necessity holding public hearings and passing on proposed coastal zone developments with the force of law. The organization depicted in Figure 3-1 will be expanded to the organization shown in Figure 5-1.

5.1 Changes in Organization and Functions

If not established earlier, the legal office within MMRC will be required at this time to provide the necessary support to decisions and actions in coastal zone management. Similarly, the public affairs office will become significantly involved in scheduling and coordinating public hearings, notifying affected parties, and assuring the availability and dissemination of relevant data to interested parties and the public at large.

As MMRC moves toward direct management of the coastal zone, the permit coordination office (which to this time had been operating in large part independently of the planning function) should now be incorporated as an integral part of the coastal zone management office, since coordination and direct review of Corps of Engineers permits becomes at this time an important aspect of Coastal Zone management.

Wetlands legislation now pending could thrust MMRC into direct management functions in the Coastal Zone at an even earlier time, although responsibility at the time of implementation will, in any event, include control of wetlands development.

The property acquisition powers required of MMRC by the Act will permit initiation of new projects and lead, in turn, to major responsibilities for the management of lands and improvements. These responsibilities may involve such operations as new approaches to increased fisheries' productivity, or conservation and research activities conducted in newly established estuarine sanctuaries.

As the plan is developed and the extent of data availability and data needs is established, further definition of necessary mechanisms for handling data will be required. The pending Federal land use legislation stresses the necessity for collection and dissemination of data by land use planning agencies. If this legislation passes, MMRC can look to the corresponding land use planning agency for land use data but will require additional data relevant to the marine environment. There, MMRC will find it highly desirable to maintain its data in format and media compatible with land use data. Further, the need to access and manipulate these data will necessitate development of at least a minimum capability for automated processing to provide the requisite speed and responsiveness to varied information requirements.

The changes discussed above are the minimum necessary for MMRC to assume the responsibilities required of it by the Act. As MMRC moves to take these responsibilities however, its interactions with other coastal zone agencies will increase significantly. To facilitate these interactions, and particularly to provide a comprehensive, integrated approach to total management of all aspects of public concern in coastal zone management, consideration should be given to realigning the structure and responsibilities of the various public agencies concerned with the coastal zone. The recommended realignment is shown in Table 5-1.

It is recommended that these agencies be reorganized in the period FY73-77 to provide a single coastal zone management with the responsibility and the necessary authority to oversee all aspects of affairs affecting the coastal zone. As a minimum, this would entail the consolidation within the MMRC coastal zone management operation of: (1) the entire Marine Conservation Commission; (2) the coastal zone authority, responsibilities, and functions of the Game and Fish Commission and the Boat and Water Safety Commission; and (3) review and approval authority over actions of many state agencies regarding the coastal zone. This reorganization will provide the basis for direct management of fisheries and other marine resources, including the introduction and fostering of methods and techniques for improving fisheries' productivity. It will assure comprehensive enforcement of regulations affecting marine affairs consistent with the coastal zone management policies and criteria as they are developed, based upon the current authority transferred from existing agencies. Similarly, acquiring review and approval authority over the actions of many state agencies impacting upon the coastal zone will assure direct responsiveness to the management planning for the Mississippi Gulf Coast and coordination with interstate agencies. Applied research, development, and demonstration projects will be arranged through existing Mississippi institutions, delegated with appropriate contractors, or performed in-house where the capability exists.

5.2 Chronology of Transition

The transition of the Mississippi Marine Resources Council must begin at the earliest possible date in FY 1973 with the acquisition of authority over the wetlands in the coastal zone, encompassing all pertinent functions such as planning, coordination, regulation, and funding. This first step will establish MMRC firmly in a coastal zone management function and demonstrate capabilities justifying the addition and funding of still other coastal zone management responsibilities in subsequent years.

The Fiscal Year 1974 is a second critical year for MMRC. Legislation must be drafted, introduced, and passed to establish firmly and distinctly the powers of MMRC for coastal zone management. The legislative package must provide and/or confirm:

- Merger of the Marine Conservation Commission into MMRC, including shell dredging and artificial fishing reef construction.
- Acquisition of the full authority in the coastal zone for:
 - Boat and water safety administration and regulation.
 - Oil and Chemical spill abatement, clean-up, and enforcement.
 - Research and demonstration projects funded by MMRC.
 - Sport fishing and hunting regulation.
 - Aquaculture regulation.
- Acquisition of the power of review and approval in the coastal zone for:
 - Recreational planning and projects (e.g., beaches, parks, piers, marinas, etc.).
 - Land development planning and projects (e.g., residential, urban, commercial, industrial, agricultural, forestry, public lands undeveloped lands, etc.).
 - Marine minerals planning and projects (e.g., oil, gas, sulphur, sand, gravel, and shells).
 - Coastal engineering (e.g., channel and slip dredging, navigation and navigational aids, and harbor and port planning and projects).
 - Power plant siting projects and planning.
 - Environmental quality plans and projects (e.g., relating to water pollution and abatement, sedimentation, pathogenic contamination, waste disposal, spills, etc.).
 - Water resources plans and projects (including inland water ways, reservoir, and other projects beyond but impacting coastal zone).
 - Land, open spaces, aesthetics, etc.

Legislation planned for passage in FY 1974 need not require immediate assumption of all the powers and responsibilities to be assigned ultimately to MMRC. Indeed, it should not, for it would not be possible for MMRC to assume all the burden so suddenly. It is recommended that initiation of new vigorous programs for major responsibilities be scheduled as follows:

- 1975 - Marine sport fishing
- 1975 - Boat and water safety
- 1976 - Power plant siting
- 1976 - Navigation and navigation aids
- 1976 - Water pollution and abatement, sedimentation, etc.
- 1977 - Oil and chemical spills

MMRC will be ready to apply by late FY1975 for grants of funds for estuarine sanctuaries. A program should be initiated for purchasing the more urgent of the lands previously designated as areas of particular concern. By FY1977, MMRC will have accrued broad authority and much experience, qualifying it to become the disaster and rehabilitation management agency on the Mississippi Gulf Coast. This and other broader and more active roles also should be sought in the consolidated economic, sociological, and technological advancement of the Mississippi coastal zone or perhaps of an interstate Gulf Coast region.

5.3 Administration and Estuarine Sanctuary Grants

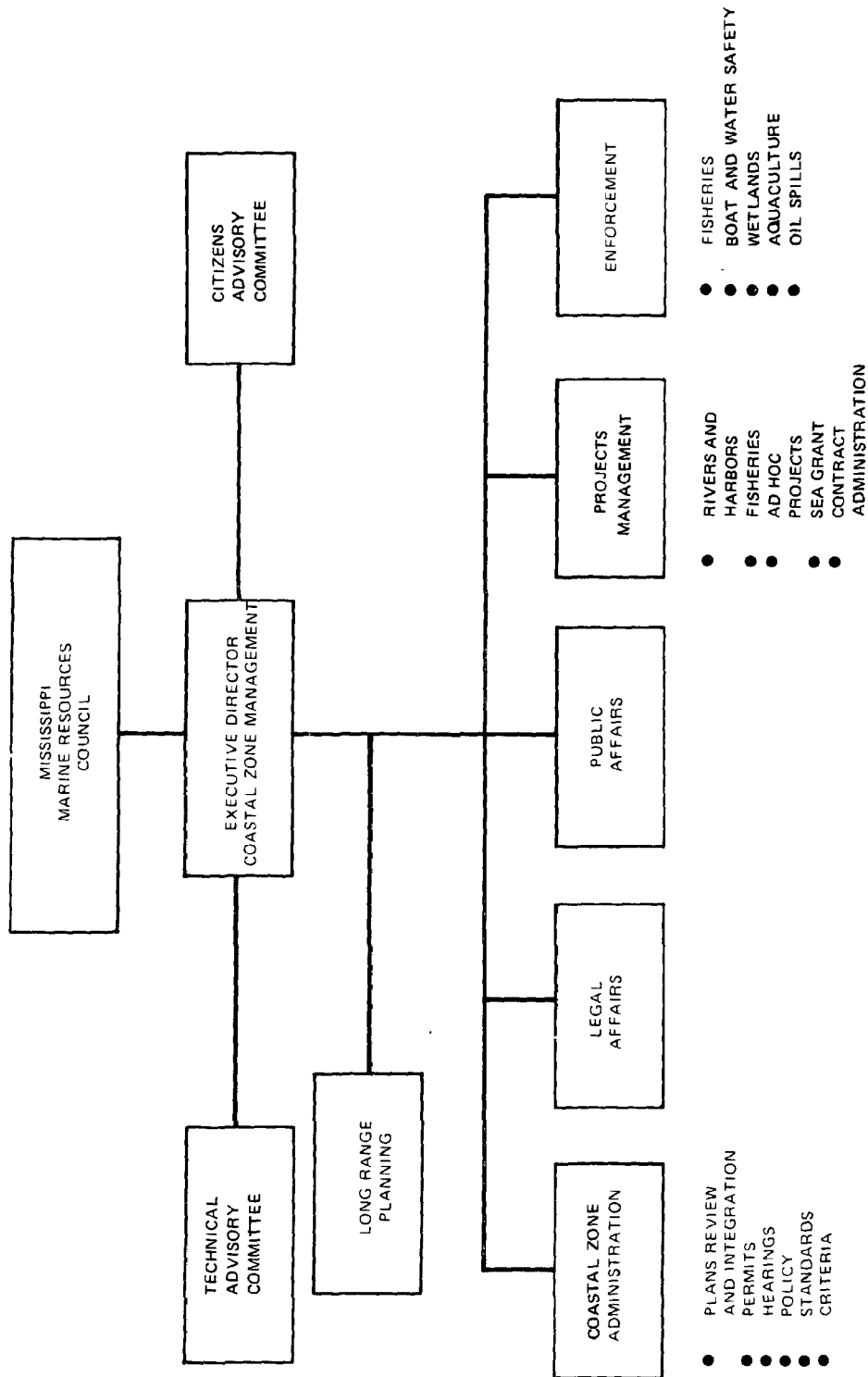
The Act also provides for Federal matching fund grants of 66 and 2/3 percent for administration of the state coastal zone management program and of 50 percent for state acquisition, development, and operation of estuarine sanctuaries. The sum of \$50 million is authorized -- but not appropriate -- for FY1974 and FY1975 for administration grants until expended. Similarly, the sum of \$6 million is authorized -- but not appropriated -- for FY1973 and for each of the two succeeding fiscal years for estuarine sanctuaries until expended.

At the time of publication of this report, however, no FY1973 funds had been released by the Office of Management and Budget for these grants. Moreover, the proposed FY1974 Federal budget contained no request for appropriations for them. And furthermore, the NOAA Office of Coastal Zone Management had not prepared nor published any guidelines to the states seeking to apply for such grants.

The MMRC is urged to follow carefully the progress of coastal zone management appropriations and to keep in frequent communication with the NOAA Office of Coastal Zone Management. As soon as funds become available for estuarine sanctuary or administration grants, MMRC should submit the appropriate applications for those grants for which it qualifies.

The estuarine sanctuary grants do not require the approved coastal zone management plan as a prerequisite. When funds are made available, MMRC should apply for them quickly -- as early as the need can be demonstrated. Certainly, MMRC should be in a position to apply for estuarine sanctuary grants by the twenty-first month of the Coastal Zone Management Plan Development Project. It is at this time that the inventory and designation of areas of particular concern must be completed for the third year planning grant application. An accelerated schedule allows MMRC to apply for estuarine sanctuary grants earlier yet.

The administration grants, however, do require the Secretary of Commerce's prior approval of the state's coastal zone management plan. When funds become available, MMRC should weight the advantages and disadvantages along with the capabilities of the staff to pursue an accelerated program of developing Mississippi's plan in order to qualify for the additional administration funds.



73033A009

Figure 5-1 MMRC Expanded Organization Structure

TABLE 5-1. RECOMMENDED REALIGNMENT OF COASTAL ZONE MANAGEMENT ACTIVITIES

CURRENT MMRC AUTHORITY							RESPONSIBLE STATE AGENCY	COASTAL ZONE USE OR ACTIVITY	RECOMMENDED ACTION BY MMRC	RECOMMENDED MMRC AUTHORITY						IMPLEMENTATION DATE FISCAL YEAR*
PLAN	COORDINATE	REVIEW	APPROVE	REGULATE	DEVELOP	FUND				PLAN	COORDINATE	REVIEW	APPROVE	REGULATE	DEVELOP	
		X					Miss. Agric. & Industry Board Miss. Park System Coliseum Commission	RECREATION Beaches, Parks, Piers	Acquire authority to review and approve		X					1974
	X						Boat & Water Safety Comm. Game & Fish Comm. Marine Conservation Comm. Marine Conservation Comm.	Boating, Marinas Fishing, Hunting Artificial Fishing Reefs	Acquire boat & water safety authority in coastal waters Acquire authority over marine sport fishing Merge MCC into MMRC	X	X		X	X	X	1974(75) 1974(75) 1974
	X						Gulf Regional Planning Comm. Dept. of Agric. & Commerce Forestry Commission Lieu Land Commission (Open)	LAND DEVELOPMENT Residential Urban, Commercial, Industrial Agricultural, Forestry Public Lands Undeveloped Lands Wetlands	Acquire authority to review and approve Acquire authority over all coastal wetlands			X		X	X	1974 1973
	X						Gulf States Marine Fish Comm. Marine Conservation Comm. (Open)	COMMERCIAL FISHERIES Finfish Shellfish Crustaceans, etc. Aquaculture	Merge MCC into MMRC Acquire authority to regulate, lease, license in salt waters	X	X			X	X	1974 1974
	X						OIL & GAS BOARD Mineral Lease Comm. Geological, E. & T. Survey Marine Conservation Comm.	MARINE MINERALS Oil, Gas, Sulfur Sand & Gravel Shells	Acquire authority to review and approve Acquire authority to review and approve Merge MCC into MMRC	X	X			X	X	1975 1975 1974
	X						Miss. Marine Resources Coun. Pat Harrison Waterway Comm. State Port Authority, etc. Miss. Marine Resources Council Public Service Commission	TRANSPORTATION, COMMUNICATIONS, UTILITIES Channel & Slip Dredging Navigation & Nav. Aids Harbors & Port Devel. & Op. Coastal Engineering Power Plant Siting	Acquire authority to approve Acquire authority to review and approve in coastal zone Acquire authority to review and approve Acquire authority to approve Acquire authority to review and approve in C.Z.			X	X	X	X	1974 1974(76) 1974 1974 1974(76)

TABLE 5-1. RECOMMENDED REALIGNMENT OF COASTAL ZONE MANAGEMENT ACTIVITIES
(Continued)

CURRENT MMRC AUTHORITY							RECOMMENDED MMRC AUTHORITY							IMPLEMENTATION DATE			
PLAN	COORDINATE	REVIEW	APPROVE	REGULATE	DEVELOP	FUND	RESPONSIBLE STATE AGENCY	COASTAL ZONE USE OF ACTIVITY	RECOMMENDED ACTION BY MMRC	PLAN	COORDINATE	REVIEW	APPROVE	REGULATE	DEVELOP	FUND	FISCAL YEAR*
	X						Air & Water Pollution Control Comm. State Soil & Water Cons. Committee State Health Board (Open)	<u>ENVIRONMENTAL QUALITY</u> Water Pollution & Abatement Sedimentation Pathogenic Contamination Oil & Chemical Spills Water Resources	Acquire authority to review and approve in C.Z. Acquire authority to review and approve in C.Z. Acquire authority to review and coordinate in C.Z. Acquire authority over enforcement Acquire authority to review and approve			X	X				1974/76) 1974/76) 1974/76) 1974/77)
X	X						Board of Water Commissioners Pearl River Basin Devel. Comm. Pearl River Water Supply Dist. Gulf Regional Planning Comm.	Land, Open Space, Aesthetics	Acquire authority to review and approve			X	X				1974
							<u>DISASTER & REHABILITATION</u> Hurricanes & Storm Surges Tsunamis & Earthquakes		Acquire authority to control and coordinate in coastal zone on behalf of governor	X	X			X	X	X	1977
X	X						Governor's Emergency Council Civil Defense Council Gulf Regional District	<u>RESEARCH, DEMONSTRATION</u> Sea Grant Other Marine Research Superport, Other Studies Economic Studies, etc.	Acquire authority to fund and direct projects to solve problems of coastal zone and demonstrate Acquire authority to purchase, establish, and operate estuarine sanctuaries and areas of special interest					X	X	X	1974
	X						University Marine Center Gulf Coast Research Lab. Gov. Sci. & Tech. Advisory Coun. R. & D. Center			X	X	X	X	X	X	X	1974/76)
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X																
	X										</						

*NOTE: Dates in parenthesis are dates of implementation.

Section 6

LEGISLATIVE CHANGES

In the early phases of preparing this report, special consideration was given to the Mississippi Marine Resources Council's (MMRC) need for state legislation to maintain or increase its effectiveness. No 1973 legislative changes or additions were identified as essential to continuance of present activities, however, in order for MMRC to achieve its full potential, the following recommendations are made in order of urgency and chronology.

6.1 Assignment of Wetlands Administration

Regardless of the final form which a wetlands protection bill takes in passage, a state agency will be named as administrator. This year, MMRC must seek this authority actively, for wetlands are clearly marine resources. The imminence of a Federal land use act adds urgency to this action, for while it is unlikely that an incumbent state agency would have its authority over wetlands abrogated, a vacuum would be filled immediately by whatever state agency is assigned to administer state-wide land use. It is imperative for orderly development of the coastal zone that authority over wetlands be in the hands of an agency qualified to assess the potential impact of proposed action. At this time, the MMRC is best qualified in this regard.

6.2 Establishing MMRC as the Cognizant State Agency

While the Council's enabling legislation implies responsibility for coastal zone management, the wording is not specific enough to guarantee the authority ultimately required by the Coastal Zone Management Act of 1972 (the Act). For that purpose, only designation by the Governor is required; however, the position of MMRC would be considerably strengthened if the legislature, as well as the Governor, acknowledged the MMRC as the focus for all such activities.

6.3 Authority to Acquire Property

Prior to granting approval of a comprehensive Coastal Zone Management Plan, the U.S. Secretary of Commerce will require that the state demonstrate the power to acquire fee simple and less than fee simple interests in lands, waters, and other property through condemnation or other means when necessary to achieve conformance with the management plan. As the cognizant coastal zone agency, the MMRC must have this authority to strengthen its position as manager and conflict mediator. Even though such authority may already rest with other state agencies through which the Council could coordinate such acquisition, direct powers are

required to satisfy the requirements and intent of the Act. The development program presented in Section 4 requires this authority in 1974.

6.4 Authority to Regulate, Control and Resolve

The Secretary of Commerce, before approving Mississippi's comprehensive Coastal Zone Management Plan, also will require that the state's designated agency, MMRC, have the authority in the coastal zone to:

- Regulate land and water use.
- Control development.
- Resolve conflicts among competing users.

This authority should be acquired in FY 1974 legislation as outlined in Section 5.

6.5 Re-alignment of Coastal Zone Management Activities

Legislation recommended in the previous pages of Section 5 also must be passed to provide for strong coastal zone management with the control centered in MMRC.

Appendix A

TASK STATEMENTS FOR MANAGEMENT

TASK PA1A: First Year Grant Application

Scope The application for the initial development grant must include:

1. Identification of Mississippi Marine Resources Council (MMRC) as the official state agency designated by the Governor to prepare and submit the management program and the legal authority or other basis under which it operates. This first application must be submitted over the Governor's signature. Subsequent applications and other correspondence can then be issued by MMRC.

If Mississippi desires to allocate a portion of its grant to other governmental units, it must identify those units and set forth the work proposed to be accomplished by each unit so identified.

2. A summary of Mississippi's past and current activities in its coastal zone including a general description of the legal authority of any state agency, local government, or area wide agency with specific reference to the management or control of the state's coastal or coastal related areas. Copies and an assessment of plans or planning accomplished for coastal zones prepared by public or private agencies with comments on the current status of such planning should be included. The purpose of this requirement is to ascertain, from Mississippi's point of view, current and proposed status of coastal zone management and planning.

3. A preliminary Management Program Design detailing the work to be accomplished in the development of Mississippi's coastal zone management program. This will be a less detailed version of the more comprehensive Management Program Design which must be submitted within 120 days after approval of the grant application. (See Task PA1B for description of the required contents.)

4. Identification of any other state and Federal planning, programming, or activity which may have a significant impact on Mississippi's coastal zone. Such planning, programming, or activities include work accomplished or to be undertaken by any state, area wide, local, regional or interstate agencies funded, in part or in total, by state or local money, with or without Federal assistance.

The objective of this provision is to seek and achieve as complete coordination and integration as possible at the state level of all local, state and Federal programs that lead to the setting of policy or the development of public and private works, facilities or programs in the state's defined coastal zone.

The provisions of the Coastal Zone Management Act of 1972 (the Act) in Section 307(c)(1) and the required methods of the coastal zone management program to integrate the programs and activities as they affect the coastal zone of the state are described in detail under Task PA2A.

PREREQUISITES: Availability of approved Office of Coastal Zone Management (OCZM) guidelines is desirable.

DEPENDENT TASKS: PA1B and initial first year funding.

RESOURCES: 4 man months.

SCHEDULE: Begin preparation immediately (presumably 120 days before program go-ahead date) to submit the application 60 days later on the assumption that approval will require an additional 60 days.

TASK PA1B: First Year Supplement

Scope: The initial grant application must be followed, within 120 days after approval, by a more comprehensive Management Program Design than the one included with the initial grant application, and by a detailed work program for the work to be accomplished during the year.

1. The Management Program Design serves as an outline of the state's plan of action for developing a management program. It is a generalized statement, covering the entire program development period, which permits the state to assess where it stands with respect to the requirements of Sections 305 and 306 of the Act, and to determine the steps needed and the sequence of those steps, to meet the requirements of the Act.

The total Management Program Design period may not exceed three years in length, but otherwise should be, in the opinion of the state, as long as necessary for the preparation and development of a management program for the land and water resources of its coastal zone. In addition, it must include:

- a. Identification of existing data
- b. Projection as to additional data which must be acquired
- c. Description of methods to ensure public participation
- d. Mechanism for coordination with agencies administering excluded Federal lands that are in the coastal zone of Mississippi

The Management Program Design may be amended by the State during the development of the plan.

2. The Annual Work Program should be a precise statement of what is to be accomplished during the year. It should include:

- a. Identification of the plans, programs, and studies to be produced
- b. Definition of the major tasks needed to produce the plans, programs, and studies
- c. Specification for each task of:

- (1) Approach and techniques to be used
- (2) Data and studies already available
- (3) Manpower requirements
- (4) Time schedule
- (5) Costs
- (6) Source of funds

PREREQUISITES: Task PA1A and approval by Secretary of Commerce

DEPENDENT TASKS: Task PA1C and continued first year funding

RESOURCES: 4 man months

SCHEDULE: Must be submitted within 120 days after grant approval

TASK PA1C: Second Year Grant Application

Scope: Second year development grant applications will generally follow the procedures detailed for first year grant applications. The Management Program Design and Annual Work Program must be updated to indicate the progress made toward the development of Mississippi's coastal zone management program under the initial development grant and should:

1. Demonstrate how the past year's work activities and products contributed to the realization of management program development objectives. If such objectives have not been fully realized, either document the extent to which they have been met, or present modified objectives.

2. Identify major constraints upon or problems encountered in establishing and implementing an adequate management program for the state.

3. Re-examine and assess the development program's broad goals and measurable planning objectives; and

4. Re-examine and, if necessary, revise Management Program Design in light of emerging or continuing priority problems and opportunities.

The review criteria for satisfactory progress in the development of the management program, to establish eligibility for the second year grant, are expected to include the completion of:

1. Analysis of the existing legal authority to exert control over land and water uses in the coastal zone;

2. Description of the activities and authorities of the various agencies (state, local, regional, area wide, or interstate) involved in activities or regulation of activities in the coastal zone; and

3. Analysis of the existing legal authorities to ensure compliance with the coastal zone management program, resolve conflicts among competing uses, and acquire fee simple and less than fee simple interests in lands, waters, and other property through condemnation or other means when necessary to achieve conformance with the management program.

This analysis will permit Mississippi to determine what legislative action will be needed to qualify under Section 306 of the Act.

PREREQUISITES: Tasks PA1B, PB1A, PA2A, PA2B, PA2C

DEPENDENT TASKS: PA1D and funding for the second year

RESOURCES: 4 man months

SCHEDULE: Submit 300 days after approval of first year grant

TASK PA1D: Third Year Grant Application

Scope: Third year development grant applications will generally follow the procedures detailed for second year grant applications (See Task PA1C). The review criteria for satisfactory progress in the development of the management program to determine eligibility for the third year grant are expected to include:

1. Identification of the boundaries of the coastal zone;
2. Development of a process by which permissible land and water uses having a direct and significant impact upon coastal waters can be defined; and
3. Criteria for designating geographic areas of particular concern.

PREREQUISITES: Tasks PC2A, PC2B, PC2C

DEPENDENT TASKS: PC3A

RESOURCES: 4 man months

SCHEDULE: Submit 300 days after approval of second year grant

TASK PA2A: Agency Identification

Scope: Identify and describe the activities and authorities of any other state and Federal planning, programming or activity which may have a significant impact on the state's coastal zone. Such planning, programming or activities include work accomplished or to be undertaken by any state, area wide, local, regional or interstate agencies funded in part or in total, by state or local money, with or without Federal assistance.

The objective of this task is to seek and achieve as complete coordination and integration as possible at the state level of all local, state, and Federal programs that lead to the setting of policy or the development of public and private works, facilities or programs in the state's defined coastal zone.

The Act provides in Section 307(c)(1) that:

"Each Federal agency conducting or supporting activities directly affecting the coastal zone shall conduct or support those activities in a manner which is, to the maximum extent practicable, consistent with approved state management programs."

To this end, the developed coastal zone management program must provide methods to integrate the following types of programs and activities as they affect the coastal zone of Mississippi.

(1) Federally assisted planning development and management programs, such as, but not limited to those listed below. (The program numbers and titles listed below are those contained in the 1972 Catalogue of Federal Domestic Assistance as published by the Office of Management and Budget.)

Statutory and Public Law Reference	Program	Catalogue No.
PL87-128;91-606; 7 USC 1926, etc.	Comprehensive Area Wide Water and Sewer Planning Grants	(10.400)
PL87-703;91-343; 74-46	Resource Conservation and Development	(10.901)
PL89-136;90-103; 91-123; 91-304; 92-56	Economic Development-Planning Assistance	(11.302)
PL83-560	Comprehensive Planning Assistance	(14.203)
PL88-578	Outdoor Recreation State Planning	(15.401)
PL89-304; 91-249	Anadromous Fish Conservation	(15.600)
16 USC 777 et al	Fish Restoration	(15.605)
16 USC 669 et al	Wildlife Restoration	(15.611)
PL 74-292	Historic American Buildings Survey	(15.903)
PL 89-665	Historic Preservation	(15.904)

Statutory and Public Law Reference	Program	Catalogue No.
PL 91-258	Airport Planning Grant Program	(20.103)
PL 90-495; 91-605; 89-574	Highway Research, Planning, and Construction	(20.205)
PL 91-453, 88-365	Urban Mass Transportation Technical Studies Grants	(20.505)
PL 89-90	Water Resources Planning	(65.001)
PL 84-450; 89-311; 90-432	Air Pollution Survey and Demonstration Grants	(66.005)
40 USC 3251 et seq.	Solid Waste Planning Grants	(66.301)
33 USC 1151 et seq.	Water Pollution Control -- Comprehensive Planning Grants	(66.401)

(2) Public works conducted, proposed to be conducted, or assisted by any Federal agency, authorized and financed outside of the Federal programs listed above, such as rivers and harbors, improvements in navigation, flood control and so forth

(3) Any federally supported national land use program which may be hereinafter enacted as specified in Section 307(g) of the Act

(4) Activities in the coastal zone stemming from the Rural Development Act of 1972

(5) State programs dealing with land use controls in the coastal zone or regulatory, licensing, permit, or operating programs in the coastal zone such as mineral extraction, power plant siting, harbor construction and so on

PREREQUISITES: Task PA1A and approval of the Secretary of Commerce

DEPENDENT TASKS: PA1C

RESOURCES: 9 man months

SCHEDULE: Months 1 through 9

TASK PA2B: Federal Areas Coordination

Scope: Excluded from the definition of the coastal zone are lands controlled by the Federal Government. Section 307(c) of the Act, however, requires the controlling Federal agencies to conduct their activities in a manner consistent with approved management programs. Before the Secretary of Commerce can approve a management program, he is required by Section 307(b) of the Act to consider the views of affected Federal agencies. Thus, affected Federal agencies should be identified and continuing liaison should be established in the course of development of the coastal zone management plan to assure effective coordination of such Federal agencies' plans with the coastal zone management plan development and its subsequent administration.

PREREQUISITES: PA1A

DEPENDENT TASKS: PA1C

RESOURCES: 12 man months

SCHEDULE: This is a continuing program

TASK PA2C: Regional, State, and Local Coordination

Scope: Section 306(c) of the Act requires that the state develop its coastal zone management program "with the opportunity of full participation by relevant Federal agencies, state agencies, local governments, regional organizations, port authorities, and other interested parties . . .", that the state coordinate its program "with local, area wide, and interstate plans applicable to areas within the coastal zone - - - which plans have been developed by a local government, an area wide agency designated pursuant to regulations established under Section 204 of the Demonstration Cities and Metropolitan Development Act of 1966, a regional agency, or an interstate agency," and that the state establish "an effective mechanism for continuing consultation and coordination between the management agency - - - and with local governments, interstate agencies, regional agencies, and area wide agencies within the coastal zone to assure the full participation. . .".

To satisfy these requirements, MMRC should utilize and build upon data, studies, and plans developed by these agencies, consider their functions and capabilities in design of the means for control over land and water uses, and, in this task, design and implement mechanisms to assure maximum participation by these agencies in all phases of development of the coastal zone management plan and its subsequent administration. Potential mechanisms for this purpose include joint or common boards of directions or planning staffs, umbrella organizations, common referral or review procedures, and information exchanges. Early contact should be established with the Mississippi planning and development clearing house both for initial notification and to establish maximum coordination with that agency's functions as defined in Office of Management and Budget Circular A-95.

PREREQUISITES: Task PA1A; Approval of the Secretary of Commerce

DEPENDENT TASK: Task PA1C

RESOURCES: 12 man months

SCHEDULE: This is a continuing task.

TASK PA2D: Public Coordination

Scope: The Coastal Zone Management Act of 1972 is quite explicit in requiring public hearings with respect to the coastal zone management plan in the course of its development, and Section 308 of the Act requires 30 day notification of such hearings, with all agency materials pertinent to the hearings to be made available to the public at the time of announcement. Guidelines from the Office of Coastal Zone Management can be expected to extend these requirements by specifying appropriate points in the plan development at which hearings must be held, detailing procedures for the hearings, and requiring additional public participation such as the formation of a citizens advisory council and/or minimum private citizen membership in MMRC itself. Thus, this task is concerned with the design of the process to achieve maximum public hearings and the detailed protocol for those hearings, including location, period of notice, means of notification, participants and agenda for the hearings, nature of availability of relevant documents and data, and the means of incorporating citizen reaction into the coastal zone management plan.

PREREQUISITES: Task PA1A and approval of the Secretary of Commerce

DEPENDENT TASKS: As determined

RESOURCES: 12 man months

SCHEDULE: This is a continuing task.

TASK PA2E: Continuing Liaison

Scope: A number of tasks depend upon the actions of agencies outside the direct control of MMRC. To assure that these external actions occur constructively and in reasonable time in relation to other dependent tasks will require continuing contact and coordination by MMRC. Areas where this continuing liaison will be particularly required include the Office of Coastal Zone Management (particularly for grant application, revisions, and approvals and for plan submittal and approval), the Mississippi State Legislature for necessary legislative actions, and other state and local agencies to expedite the availability of data and required concurrences and approvals.

PREREQUISITES: PA1A

DEPENDENT TASKS: All others

RESOURCES: 36 man months

SCHEDULE: This is a continuing task.

TASK PB1A: Legal Analysis

Scope: The Act requires the coastal zone management agency to have the legal authority to:

1. Regulate land and water uses in the coastal zone
2. Control development to the coastal zone
3. Resolve conflicts among competing users
4. Acquire fee simple and less than fee simple interests in lands, waters, and other property through condemnation or other means when necessary to achieve conformance with the management program.

These powers clearly exceed the existing legal authority of the MMRC. Thus, this task is required to review the extent to which the existing powers of MMRC might be able to satisfy these requirements, and to evaluate alternative mechanisms by which, through legislative action, these requirements can be satisfied. Particular alternatives for consideration should be examined in the context of the allowable alternatives for exerting control of land and water uses:

1. MMRC establishment of criteria and standards for local implementation, subject to administrative review and enforcement of compliance;
2. Direct MMRC land and water use planning and regulation; or
3. MMRC administrative review for consistency with the management program of all development plans, projects, or land and water use regulations, including exceptions and variances thereto, proposed by any state or local authority or private developer, with power to approve or disapprove after public notice and an opportunity for hearings.

PREREQUISITES: Task PA1A and approval of the Secretary of Commerce

DEPENDENT TASKS: Task PA1C

RESOURCES: 10 man months

SCHEDULE: Months 1 through 5, with part-time effort continuing in months 6 through 35.

TASK PB2A: Legislative Drafting

Scope: After the preliminary design of the proposed organizational structure for administration of the coastal zone management plan is created, the legal requirements to implement the plan must be reviewed to establish the necessary legislative changes. A

preliminary bill or bills encompassing the changes then must be drafted and submitted to the legislature.

PREREQUISITES: Task PB1A and approval of the Secretary of Commerce

DEPENDENT TASKS: Task PA1C, PC3A

RESOURCES: 4 man months

SCHEDULE: Months 3 through 6

TASK PC1A Data Acquisition

Scope: The act specifies that the coastal zone management plan must be coordinated with local, area wide, and interstate plans applicable to areas within the coastal zone. Initial interpretation by the Office of Coastal Zone Management are to the effect that formulation of the coastal zone management plan should utilize available data and information to the maximum practicable extent. Thus, the development program should seek out and utilize available data and information from existing city, county, and regional planning agencies and from Federal agencies and programs such as

- U.S. Coast Guard, Department of Transportation
- National Science Foundation -- Research Applied to National Needs
- Sea Grant programs carried on by various state universities
- U.S. Environmental Protection Agency research activities
- Department of Housing and Urban Development
- U.S. Geological Survey, Office of Water Resources Research, and other agencies of the Department of the Interior
- Environmental Research Laboratories, National Marine Fisheries Service, National Ocean Survey, Maritime Administration, and other agencies in the Department of Commerce
- Economic Development Administration
- Soil Conservation Service and other agencies of the Department of Agriculture
- U.S. Army Corps of Engineers and other agencies of The Department of Defense
- National Aeronautic and Space Administration

PREREQUISITES: PA1A and approval of the Secretary of Commerce

DEPENDENT TASKS: Task PC1B

RESOURCES: 12 man months

SCHEDULE: This is a continuing task through the 32nd month.

TASK PC1B: Data Evaluation

Scope: The data and information obtained in Task PC1A must be reviewed for its adequacy to the purposes of subsequent required tasks, leading to the identification of specific

additional data and information requirements and additional tasks as necessary to obtain the data. These supplementary data and information requirements may be satisfied by existing data and information from other agencies, or they may require initiation of research projects. It is to be expected, for example, that adequate data and information should be available directly related to land use planning, but the data and information to demonstrate its relevance and impact on marine resource utilization may have significant gaps, and research projects may be required to establish adequately adverse impacts on the marine environment, marine dependencies of particular uses, determination of environmental carrying capacity, resource inventories, or other required data and information.

PREREQUISITES: Task PC1A

DEPENDENT TASKS: Tasks PB1A, PC2A, PC2B, PC2C, etc.

RESOURCES: 21 man months

SCHEDULE: This is a continuing task through the 33rd month.

TASK PC2A: Boundary Definition

Scope: While the Act is fairly explicit in defining the seaward extent of the coastal zone, the inland limits are left to the judgment of the state. The basic difficulties in this definition lie, first, in variations from state to state in natural, institutional, and legal characteristics of appropriate boundaries, and in the permissible variations in the approach to coastal zone management; and second, in the fact that, however the coastal zone may be defined, much of the data utilized in analysis and physical factors impacting the coastal zone can be expected to encompass significantly larger geographic areas than the coastal zone.

As a result, the most viable solution to the coastal zone definition may entail a graduated involvement in land and water use planning and control, rather than a rigidly defined area in which controls are applied uniformly. Thus, the basic planning area might well be defined on the basis of county boundaries, with the application of controls limited to factors enunciated in the criteria that can be reasonably related to significant effects on a more narrowly defined coastal zone. Some considerations must also be given to possible mechanisms and the reasonable extent of control of activities beyond the defined planning area, which have significant effect in the coastal zone.

PREREQUISITE: Task PC1B

DEPENDENT TASK: Task PA1D

RESOURCES: 6 man months

SCHEDULE: Months 10 through 21

TASK PC2B: Use Definitions

Scope: The Act specifically requires a definition of permissible land and water uses within the coastal zone which have a direct and significant impact on the coastal waters, as part of the coastal zone management program to be developed under the Act. As presented in Section 302 of the Act, recognized existing uses include requirements for industry, commerce, residential development, recreation, extraction of mineral resources and fossil fuels, transportation and navigation, waste disposal, and harvesting of fish, shellfish, and other living marine resources. Section 303 further states that these uses are to be managed giving full consideration to ecological, cultural, historic, and aesthetic values as well as to needs for economic development.

A major factor in determining permissible uses will be the water quality criteria established for coastal waters established under the Federal Water Pollution Control Act, since the Coastal Zone Management Act specifies that it will not affect any requirement established by the Water Pollution Control Act or the Clean Air Act, and that the requirements established under these Acts must be incorporated into any management programs.

Defining which land and water uses have a direct and significant impact upon coastal waters, and ultimately, therefore, the extent to which they must be limited or controlled, will require:

1. Determination of criteria and measures to assess the impact of existing, projected, or proposed uses on the coastal environment, to determine the carrying capacity of the coastal zone for the various uses.
2. Categorization of the nature, location, scope, and conflicts of current and anticipated coastal land and water uses.
3. Compilation, verification, and assessment of the general characteristics, values, and interrelationships among existing coastal land and water environments.

Based upon these and similar studies, it should then be possible to define permissible uses.

PREREQUISITE: Task PC1B

DEPENDENT TASK: Task PA1D

RESOURCES: 6 man months

SCHEDULE: Months 10 through 21

7. Areas especially suited to intensive use or development of key facilities

In addition, immediacy of need is another important consideration in designating an area of particular concern.

PREREQUISITE: Task PC2C

DEPENDENT TASKS: Task PA1D, PC2E

RESOURCES: 3 man months

SCHEDULE: Months 15 through 21

TASK PC2E: Priority Guidelines

Scope: Section 305(b) of the Act requires that the approved management program include broad guidelines on priority of uses in particular areas, including specifically those uses of lowest priority. Generally, priority use guidelines should be developed based on the results of Task PC2B, definition of permissible uses, and Task PC2D, areas of particular concern. These guidelines will represent the particular articulation of Mississippi's specific point of view on the relative priorities and values of economic development in particular areas versus the competing needs for preservation and conservation of living marine resources, wildlife, nutrient rich areas to avoid permanent and adverse changes to ecological systems, decreasing open space for public use, and shoreline erosion.

PREREQUISITES: Tasks PC2B, PC2D

DEPENDENT TASK: Task PC3A

RESOURCES: 6 man months

SCHEDULE: Months 10 through 21

TASK PC2F: Organizational Structure

Scope: Section 305(b) of the Act requires the management plan to include a description of the organizational structure proposed to implement the management program, including the responsibilities and interrelationships of local, area wide, state, regional, and interstate agencies in the management process. Essential elements of the organizational structure are the required power to exert control over all land and water use decisions in the coastal zone, and the power to acquire land, (Section 306(d)). Techniques for control of land and water uses in the coastal zone (Section 306(e)) may be any one or a combination of:

1. State establishment of criteria and standards for local implementation, subject to administrative review and enforcement of compliance
2. Direct state land and water use planning and regulation

TASK PC2C: Designation Procedures

Scope: Section 306(c) of the Act requires the approved management program to include provisions for procedures whereby specific areas may be designated for the purpose of preserving or restoring them for their conservation, recreational, ecological, or aesthetic values.

The procedures to be defined should encompass:

1. Designation of such areas in the planning process
2. Consideration of candidate areas based on public petition or donations.
3. Methods for implementation, including acquisition of land through condemnation or other means
4. Means for the continuing administration of such areas, following acquisition

PREREQUISITE: Task PC1B

DEPENDENT TASKS: Task PA1D, PC2D

RESOURCES: 3 man months

SCHEDULE: Months 10 through 15

TASK PC2D: Area Designation

Scope: Section 305(b) of the Act requires that the management program include an inventory and designation of areas of particular concern within the coastal zone. The Act recognizes that the problems and immediate needs in the coastal zone can be expected to vary from state to state depending on the precise character of the coastal zone, and the extent of existing pressures and competing demands for access to and irreversible development of sections of the coastal zone. Potential criteria for designating areas of particular concern include:

1. Areas of unique, scarce, fragile, or vulnerable natural habitat, physical features, historical significance, cultural value, and scenic importance
2. Areas of high natural productivity for plants, fish, or wildlife
3. Areas of substantial recreational value
4. Areas where developments and facilities are dependent on the utilization of, or access to, coastal waters
5. Areas of urban concentration where shoreline utilization and water uses are highly competitive
6. Areas which are intensely developed, in which reclamation, restoration, public access, or other efforts are especially needed.

3. State administrative review for consistency with the management program of all development plans, projects, or land and water use regulations, including exceptions and variances thereto, proposed by any state or local authority or private developer, with power to approve or disapprove after public notice and an opportunity for hearings.

PREREQUISITES: Task PA1D and others

DEPENDENT TASKS: Task PC3A, PB2A

RESOURCES: 12 man months

SCHEDULE: Months 1 through 5 and 24 through 35

TASK PC3A: Plan Synthesis

Scope: In this task, the results of the analyses performed in Tasks PC2A, PC2B, PC2C, PC2D, PC2E, and PC2F must be combined to formulate a comprehensive document setting forth the complete coastal zone management plan, which can then be submitted to the Secretary of Commerce for approval and subsequent implementation.

PREREQUISITES: Tasks PA1D, PB2A, PC2A, PC2B, PC2C, PC2D, PC2E, and PC2F

DEPENDENT TASK: Task PD2A

RESOURCES: 12 man months

SCHEDULE: Months 24 through 35

TASK PC3B: Documentation

Scope: In this task, the draft report is edited and typed on mats; illustrations are reviewed and turned over to the artists. Upon completion, the report is proofread, read by the responsible managers, and in the case of the final plan, approved by the Governor of the State of Mississippi for publication and submitted. The report is printed, bound, and packaged. Delivery is finally effected. This procedure applies to the final coastal zone management plan and also to each of the applications for planning grants from the Office of Coastal Zone Management.

PREREQUISITE: Task PC3A

DEPENDENT TASKS: Final review and approval by the Secretary of Commerce

RESOURCES: 10 man months

SCHEDULE: Months 2 through 4, 8 through 10, 20 through 22, and 33 through 36

Appendix B

AGENCIES, PROGRAMS, AND PROCEDURES

1. COORDINATING AGENCIES

The following agencies will be those with which the MMRC will be coordinating and contacting on a fairly regular basis during preparation and implementation of a comprehensive Coastal Zone Management plan. The list includes only the principal agencies and is not meant to exclude others with which the Council may occasionally contact. It is the foundation for developing the more complete list of agencies and activities having impact on Mississippi's coastal zone (see Task PA1A).

AGENCY	DUTIES, ACTIVITIES AND AREAS OF COORDINATION
<p>STATE:</p> <p>Marine Conservation Commission (Ref: Sect. 6047-04 Miss. Code of 1942)</p> <p>Universities Marine Center</p> <p>Gulf Coast Research Laboratory</p> <p>Agricultural and Industrial Board (A&I Board) (Ref: Section 8936, Miss. Code of 1942)</p>	<p>Jurisdiction and control of seafood industry. The MCC regulates commercial fishing in the marine waters of Mississippi as to allowable size, amount, and length of season for regulated species of finfish and shellfish.</p> <p>A consortium comprised of Mississippi State University, the University of Southern Mississippi, the University of Mississippi, and Gulf Coast Research Laboratory. The Center serves as the research and education arm of the Mississippi Marine Resources Council.</p> <p>Primarily a marine resources research facility, the laboratory also offers course work in marine biology and geology to students of state supported colleges and universities with which the laboratory is affiliated.</p> <p>To prepare and execute a program of publicity and advertising for the purpose of promoting industrial activity, by giving aid and assistance in the establishment and location of industries in the State of Mississippi, and such other duties as may be required by law.</p>

AGENCY	DUTIES, ACTIVITIES AND AREAS OF COORDINATION
<p>Board of Trustees, Institutions of Higher Learning (Ref: Section 6720, Miss. Code of 1942)</p>	<p>Management and control of all state-supported institutions of higher learning.</p>
<p>State Port Authority (Ref: Section 7564-07 Miss. Code of 1942)</p>	<p>To administer the State Port at Gulfport.</p>
<p>Air and Water Pollution Control Commission (AWPCC) (Ref: Section 7106-111 Miss. Code of 1942)</p>	<p>To provide for prevention, abatement, and control of air and water pollution and to provide cooperation with other agencies of the State, agencies of other states and the Federal Government in accomplishment of these objectives.</p>
<p>State Oil and Gas Board (Ref: Section 6132-02, Miss. Code of 1902)</p>	<p>To administer all laws governing oil and gas activities, production and distribution in the State.</p>
<p>REGIONAL:</p>	
<p>Gulf Regional Planning Commission (GRPC) (Ref: Miss. House Bill 393, 1964)</p>	<p>The CRPC is the principle planning agency for Hancock, Harrison, Jackson and Pearl River Counties in areas of land use, transportation recreation, water and sewers. The GRPC is the A-95 clearing house for applicable Federal programs in the Region and also administers a number of HUD grants.</p>
<p>Jackson County Planning Commission</p>	<p>To provide land use planning and zoning assistance to the county board of supervisors. Performs studies on local demographic conditions and trends.</p>
<p>Jackson County Port Authority</p>	<p>To manage the county port and harbor facilities. Plans and promotes harbor expansions and new developments.</p>
<p>Harrison County Development Commission (Ref: Section 7605-02 Miss. Code of 1942)</p>	<p>To engage in the work of improvement, promotion, development, maintaining and operating harbors and seaports within the county.</p>

AGENCY	DUTIES, ACTIVITIES AND AREAS OF COORDINATION
Hancock Port and Harbor Commission	To promote and develop port and harbor facilities and associated industrial complexes.
FEDERAL:	
U.S. Department of Commerce	Most contact with this department will be with the National Oceanic and Atmospheric Administration's Coastal Zone Management Office. National Marine Fisheries Service, also of NOAA, can provide information and advice on living resources conservation, enhancement and exploitation. The Sea Grant Office will be contacted frequently.
U.S. Department of Interior	Interior is most likely to be named as administrating agency for the Federal Land Use Act. (S.-268 pending). The Act will include the coastal zone, but should not abrogate the authority of any state wetland's administrative agency. Coordination with the department's offices of Fish and Game, Forests and Parks and Water Resources will also be required.
National Science Foundation	In fiscal year 1974, NSF problem oriented research and grants will be expanded in selected areas of research applied to national needs, environmental planning, ecological studies and the exploration of ways to encourage greater research and development efforts applicable to the needs of industry, state and local governments. Those programs should correlate with coastal zone research needs.
U.S. Army Corps of Engineers	Coordination with the COE will be mostly with regard to permit review and Corps activities in waterways modification and maintenance. The Corps may also be involved in oil terminal siting and construction.
U.S. Environmental Protection Agency	Most coordination with EPA will be through the Mississippi Air and Water Pollution Control Commission. However, direct contact will be required during preparation of the Coastal Zone Management Plan for technical advice and exchange of ideas.

TABLE B-1 COMPILATION OF LEGISLATION

PUBLIC LAW OR STATUTE	TITLE - DESCRIPTION	FEDERAL AGENCY/ DEPARTMENT	RANGE OF ASSISTANCE	AVERAGE ASSISTANCE	MISS. PARTICIPATION		MISS. ADMIN. AGENCY	AMOUNT GRANTED	AWARD DATE	COMMENTS
					YES	NO				
P.L. 89-80 42 USC 1982-4-1	WATER RESOURCES PLANNING ACT - - to provide grants for increased participation by the states in water and related land resources planning and to develop technical planning capabilities.	Water Resources Council (202) 254-6453	\$ 7,280 - 124,600	\$ 70,000	X		Brd. of Water Comm.	33,800	7-1-72	Water and Related Land Use Planning
P.L. 88-206 As Amended P.L. 91-604 Sec. 104-105 42 USC 1857 P.L. 90-148	CLEAN AIR ACT - to assist state, local, regional, and interstate agencies in planning, developing, establishing, improving and maintaining adequate programs for control of air pollution - funds may not be used for construction of facilities. - state, local, individual, institutional grants may be obtained under various sections of the act: (a) Air Pollution Fellowships (b) Air Pollution Manpower Training Grants (c) Air Pollution Control Research Grants (d) Air Pollution Survey and Demonstration Grants	Environmental Protection Agency (EPA) - Office of Air Programs (919) 545-8411 Ext. 2492	\$ 1,200 - 2,780,000	\$ 132,000	X		Air and Water Pollution Control Comm.	419,489	6-27-72	Improve Air Pollution Control Program (CQ)
42 USC 1857b 42 USC 1857b 42 USC 1857b1 42 USC 1857b1			\$ 5,000 - 6,000 \$ 10,000 - 200,000 \$ 2,000 - 150,000 \$25,000 - 400,000	\$ 5,500 \$ 75,000 \$ 35,000 \$ 139,952	Not Apparent					No Award Reported During Jan. - Nov. 1972
42 USC 3291 et seq. P.L. 89-272 Solid Waste Disposal Act	SOLID WASTE PLANNING GRANTS - to assist states, interstate, local, etc., in development of plans and programs leading to the solution of solid waste management problems - make surveys of solid waste disposal practices - develop and revise solid waste disposal plans as applicable to recycle, recovery, reuse: (a) to support R&D in this area (b) to construct advanced recovery systems (c) to develop training programs	EPA - Office of Solid Waste Management Programs (613) 884-2602	\$ 5,000 - 150,000	\$ 33,700			City of De Soto Lee County	79,724 28,467	10-2-72 8-7-72	Establish City-Wide Solid Waste Management System Solid Waste Management Project
			\$10,000 - 150,000 \$ 3,000 - 1,165,000 \$25,000 - 100,000	\$ 45,000 \$ 88,000 \$ 35,000	Not Apparent					No Award Reported During Jan. - Nov. 1972

TABLE B-1 COMPILATION OF LEGISLATION (CONT.)

PUBLIC LAW OR STATUTE	TITLE - DESCRIPTION	FEDERAL AGENCY/ DEPARTMENT	RANGE OF ASSISTANCE	AVERAGE ASSISTANCE	MISS. PARTICIPATION YES NO	MISS. ADMIN. AGENCY	AMOUNT GRANTED	AWARD DATE	COMMENTS
33 USC 1151 86 Stat 816 33 USC 466 P.L. 84-460	FEDERAL WATER POLLUTION CONTROL ACT — to provide financial assistance to a Governor's approved planning agency for development of comprehensive water pollution control and abatement plans — — to support R&D and demonstration in this area — construction grants — prevention and control of water pollution — state and local manpower development — training grants	EPA - Office of Water Programs (202) 755-2650	\$23,430 - 990,000	\$ 125,000	X	Air and Water Pollu- tion Control Comm. Duck Hill Sanitower Stonewall Winstonville Artesia Hazlehurst Wesson Tic Plant Water and Sewer Dist. Hancock City Port and Harbor Comm. Grenada Jackson Ocean Springs Gulf Coast Devel. Lambert Vicksburg Greenville Jasper Greene Amlite Town of Union City of Baymont Town of Sunflower Town of Sunflower Town of Sunflower West Town of Inverness City of Hollandale City of New Albany Town of Mills	191,400 34,550 21,450 22,000 28,980 68,000 538,330 150,700 34,040 68,500 1,089,000 2,803,350 13,070 481,220 155,300 472,460 163,190 29,580 13,920 73,150 201,000 9,780 40,700 47,080 51,150 60,000 131,940 181,500 293,700 77,000	10-18-72 10-17-72 10-1-72 9-27-72 9-19-72 7-5-72 8-28-72 8-04-72 8-21-72 6-28-72 6-22-72 6-15-72 5-2-72 5-19-72 6-15-72 6-15-72 1-24-72 1-18-72 9-29-70 1-1-72 2-18-72 2-15-72 3-21-72 3-30-72 6-15-72 4-20-72 3-21-72 3-30-72 3-21-72	Assist in Monitoring Adequate Water Pollution Control Plan Provide for Waste Stabilization Ponds Construction New Waste Water Treatment Facility (Grant Increase) Construction New Waste Water Treatment Facility (Grant Increase) Construction New Waste Water Treatment Facility (Grant Increase) Construction New Waste Water Treatment Facility (Grant Increase) Two Secondary Waste Water Treatment Facilities Construct New Waste Water Treatment Facility New Waste Water Treatment System Research for Decontamination of Land Spills New Waste Water Treatment Plant Construct Interceptor Sewers Expansion of Waste Water Treatment Works Animal Waste Management Demo Project For Feed Lots New Waste Water Treatment Plant (Grant Increase) Secondary Sewage Treatment Plant (Grant Increase) Secondary Sewage Treatment Facility Secondary Sewage Treatment Facility Secondary Sewage Treatment Facility Works Secondary Sewage Treatment Facility Construct Waste Water Facility, Pump Sta. Construct Waste Water Facility Treatment Works (Ind) Construct Waste Water Facility Treatment Works (Ind) Construction of Waste Water Treatment Works Waste Water Treatment Works New Waste Water Treatment Facility Construction Grant for Waste Water Treatment Extension of Waste Water Treatment Works Construction of Waste Water Treatment Works Waste Water Treatment Works

TABLE B-1. COMPILATION OF LEGISLATION (CONT.)

PUBLIC LAW OR STATUTE	TITLE DESCRIPTION	FED AGENCY DEPT.	RANGE OF ASSISTANCE	AVERAGE ASSISTANCES	MISS PARTICIPATION		MISS ADMIN. AGENCY	AMOUNT GRANTED	AWARD DATE	COMMENTS
					YES	NO				
7 USC 1828 P.L. 89-240	Comprehensive Area-wide Water & Sewage Planning Grants Comprehensive Planning Grants to provide technical & professional services to promote efficient & orderly development of rural communities thus avoiding overlapping, duplication under or over design of community & sewage facilities.	Dept. of Agriculture Farmer Home Administration 202-388-7988	\$ 500-317,000	\$12,000	X		Tie Pit Water & Sewer Det. Firm Water Association Artesia	17,200	10/04/72	Help complete of Water & Waste Disposal System
							Bude	60,000	9-19-72	Constant New Water System 7 USC 1826
							Centinaw	100,000	7-6-72	Help constant New Water & Waste Disp System
							Derma	35,000	8-21-72	Drill New
							Sun Flower	30,000	7-5-72	External Waste Disposal System
							Sandersville	153,000	7-5-72	Water & Waste Disposal System
							Caay Jones Water Assoc Inc.	60,000	7-17-72	Improve Water & Sewer Facilities
							Center Grove Water Assoc	57,800	7-06-72	Sewage & Water System Improvement
							East New Albany Water Assoc	49,000	7-06-72	Constant Water System
							Farmer Home Adm.	20,000	7-17-72	Extend Distribution Line For Waste System
							Kidling Water Assoc. Dixie	20,000	7-5-72	Extend Distribution Line For Waste System
							Lorren Watermake Assn	16,000	1-11-72	Help Finance Rural Water System
							Melhi Mart Water Assn-Lucedale	62,500	1-20-72	Help Finance Rural Water System
							Portummed-Carmock Water Assn.	41,000	1-27-72	Help Finance Rural Water System
							Simpson Water Assn.	40,000	1-24-72	Help Finance Rural Water System
							Sunrise Utility Assn.	38,000	1-11-72	Help Finance Rural Water System
							Town of Lake	40,000	1-11-72	Help Finance Rural Water System
							Coles Comm. Water Assn.	30,000	4-24-72	Development Grant for Water System
							Hatten Water Assn. Inc.	33,000	4-20-72	Development Grant for Water System
							North Lauderdale Water Assn.	20,000	4-14-72	Development Grant for Rural System
							Okotomer Water Assn. Inc.	47,000	4-20-72	Development Grant for Rural System
							Stringer Water Works Assn.	46,000	4-7-72	Water Sup. Improvement
							Broadmour Utilities	10,000	4-21-72	Development Grant for Water System
							French Camp Water Assn.	50,000	2-7-72	Development Grant for Sewer System
							Providence Water Assn.	20,000	2-4-72	Development Grant to Help Finance Water Sys Ext.
							Shongalo Rural Water Assn.	1,500	2-16-72	Water Well Repairs Cont. Grant
								6,800	2-25-72	Finance Rural Comm. Water System

TABLE B-1 COMPILATION OF LEGISLATION (CONT.)

PUBLIC LAW OR STATUTE	TITLE - DESCRIPTION	FED AGENCY DEPT.	RANGE OF ASSISTANCE	AVERAGE ASSISTANCE	MISS. PARTICIPATION YES NO	MISS. ADMIN. AGENCY	AMOUNT GRANTED	AWARD DATE	COMMENTS
7 USC 1010, 1011 P.L. 87-703, 91-343 74-48	Food & Agriculture Act of 1962 To assist local people in initiating & carrying out long range programs of resource conservation and development for purposes of achieving a dynamic rural community. Works may include measures seeking purposes and as flood prevention, sedimentation & erosion control, public water based recreation & fish & wildlife developments.	Dept. of Agriculture Soil Conservation Service (202) 386-4531	2000-250,000	20,000	X	Harmony Water Assoc. Killing Water Assoc. Mehulville Water Assoc. N. Corington Water Assoc. N. Leman Water Assoc. Poor House Water Assoc. River Line Hills Water Assoc. Sutton Water Assoc. West Hill Forestry Comm. Short Bayou Drainage Dist. Pilon Bayou Drainage	110,000 62,500 14,000 178,000 70,000 126,000 30,000 3,000 12,500 12,000 72,295 26,208	7-7-72 8-3-72 7-5-72 7-6-72 7-6-72 7-6-72 7-17-72 7-5-72 7-6-72 10-8-72 4-2-10-72	Extend Distrib. Line for 300 users Help Complete Construction of Water System Help Complete Construction of Water System Help Complete Construction of Water System Help Complete Construction of Water System Help Complete Construction of Water System Construct New Water and Sewer System Construct New Water and Sewer System Replace Existing Well Resource Conservation and Utilization Channel Improvement and Structures Install Grade Control Structures
P.L. 83-856 & Continuously Funded Thru 90-351	Water Shed Protection & Flood Prevention (Small Watershed Program) Assistance is provided in planning, designing and installing watershed works of improvements; in sharing cost of flood prevention, irrigation, drainage sedimentation control, fish & wildlife developments and public recreation.	Dept. of Agriculture Soil Conservation Service (202) 388-4531	20,000-10,000,000	2,000,000	X	Bottle Creek Watershed Marigold Drainage Dist Muddy Creek Watershed Tusculum Drainage Dist Forestry Commission	1,250 22,385 16,000 354,100 112,295	3-31-72 9-27-72 3-29-72 9-27-72 10-8-72	Appraisal Services Construct 1.3 miles of Channel Improvements Develop Plans and Cost Estimates Construct Flood Water Retarding Structures Flood Prevention and Conservation for Watershed (line)
P.L. 83-566	River Basin Surveys & Investigation - To assist States preparing comprehensive plans for development of water & related land resources within a river basin or regions.	Dept. of Agriculture Soil Conservation Service 202-388-4531	300,000-1,500,000	650,000					Co-ordination with Water Resources Council for New Program
P.L. 89-304 As Amended By P.L. 91-249 (16-601)	Anadromous Fish Act For approved projects which include planning, inventory research, supplements to seafood protection, Fish passage & guidance facilities & habitat improvement projects.	Dept. of Interior Bureau of Sport Fisheries & Wildlife Dept. of Commerce National Marine Fisheries Services (202) 343-4173 Dept. of Commerce NOAA	3500-450,000	81,700	Not Apparent				No Funds Received by Mississippi During Period Jan. - Nov. 1972
P.L. 89-304 As Amended By 16USC757 (11-401)	Anadromous Fish Act Amended Funds can be used for spawning area improvements, installations of fishways, construction of fish protection devices and hatcheries, and research to improve management & increased anadromous fish resources.		4500-404,800	66,666	Not Apparent				No Funds Received by Mississippi During Period Jan. - Nov. 1972

TABLE B-1 COMPILATION OF LEGISLATION (CONT.)

PUBLIC LAW OR STATUTE	TITLE - DESCRIPTION	FED. AGENCY DEPT.	RANGE OF ASSISTANCE	AVERAGE ASSISTANCE	PARTICIPATION YES	MISS. PARTICIPATION NO	MISS ADMIN. AGENCY	AMOUNT GRANTED	AMAND DATE	COMMENTS
P.L. 88-309 16 USC 779-779f	COMMERCIAL FISHERIES R&D To promote state R&D of commercial fishery resources, including the construction of facilities.	Dept of Commerce NOAA (813) 893-3141	\$19,000 - \$228,000	\$70,000	X		Marine Conserv. Com. Marine Conserv. Com. Marine Conserv. Com. Marine Conserv. Com. Marine Conserv. Com. Marine Conserv. Com.	35,000 21,000 21,225 15,000 27,342 1,394	8-22-72 6-6-72 6-6-72 6-6-72 4-5-72 4-5-72	Experimenta Stocking of Bass Study Environmental Requirements of Penaeid Shrimp Study History of Blue Crab Investigation of Coastal Pelagic Fishes Study of Diseases Affecting Commercial Fisheries Study of Parasites and Diseases Affecting Shellfish
P.L. 89-720 16 USC 1201 As Amended P.L. 91-461	JELLYFISH ACT OF 1967 To provide for the control or elimination of jellyfish, other such pests and floating seaweeds in the coastal waters.	Commerce NOAA (813) 893-3141	\$8,000 - \$60,000	\$21,850	X		Marine Conserv. Com.	9,500	3-30-72	Jellyfish Infestations Study
P.L. 89-688 and 89-494 33 USC 1122 - 1124	NATIONAL SEA GRANTS COLLEGE AND PROGRAM ACT To support establishments of major university centers for marine research, education, training and advisory services and individual investigations in marine research, education, training having limited objectives.	Commerce NOAA (202) 343-6025	\$2,000 - \$1,700,000	\$500,000	X					Various Grants
P.L. 89-136 As Amended by P.L. 90-103 91-123 and 92-65 42 USC 3151 (b) 3152	PUBLIC WORKS AND ECONOMIC DEVELOPMENT ACT (a) Economic Development - Planning Assistance - to develop multi county districts planning capabilities and thereby assures effective utilization of resources in creating full time permanent jobs the unemployed and underemployed.	Commerce Economic Development Admin. (202) 967-5111	\$20,000 - \$75,000	\$43,000	X		North Central P&OD Southern Miss P&OD Southwest Miss P&OD North Delta P&OD City of Grande S. Delta Plan & Dev. Town of Olive Branch	47,025 90,000 42,099 48,090 862,000 57,960 745,800	5-26-72 5-15-72 5-4-72 6-28-72 4-12-72 4-12-72 2-1-72	Dist. Develop Program Planning Assistance Grants Planning Assistance Grants Assist in Dist Operating Expenses Industrial Parks Improvement Planning Assistance Grant Expand and Improve Water and Sewage Sys.
42 USC 3131, 3135, 3136 3171	(b) Economic Development - Technical Assistance - to solve problems of economic growth in EDA-designated geographic areas and other areas of substantial need through feasibility studies, management and operational assistance. Technical assistance may be in form of services provided by contract or direct grants. (c) Economic Development - Public Works Impact Projects - to provide immediate useful work to unemployed and underemployed persons in designated areas.	Commerce Economic Development Admin. (202) 967-5111	\$300 - \$497,000	See Note	X		Town of Tunica	155,200	2-1-72	Construct County Office Bldg.
33 USC 428g As Amended by 84 Stat. 1821	RIVERS AND HARBORS ACT (Small Erosion Control Projects) Control of beach and shore erosion to public shores through projects not specified by Congress.	Commerce Economic Development Admin. (202) 967-5111	Project fees than \$600,000	\$220,000	X		Waveland Tunica	298,400 269,600	8-10-72 5-8-72	New Sewage Collection System (G.I.) Water and Sewer System Improvement
P.L. 84-99 As Amended by 87-874 33 USC 701n	FLOOD CONTROL WORKS AND FEDERALLY AUTHORIZED COASTAL PROTECTION WORKS Assist owners of damaged property or states to repair and restore flood control works damaged by flood.	DOD Corp of Army Engineers (202) 693-6875	\$150,000 - \$900,000	\$300,000	X					Various Grants
					Not Applicable					No Grants - Performed for Corp of Engineers

TABLE B-1 COMPILATION OF LEGISLATION (CONT.)

PUBLIC LAW OR STATUTE	TITLE-DESCRIPTION	FED. AGENCY DEPT.	RANGE OF ASSISTANCE	AVERAGE ASSISTANCE	MISS. PARTICIPATION	MISS. AGENCY	AMOUNT GRANTED	AWARD DATE	COMMENTS
40 USC 461	COMPREHENSIVE PLANNING ASSISTANCE	HUD	No figures available on the range of assistance or average funding - government obligation for FY 73 is estimated at \$100,000,000. for FY 74 \$10,000,000.	410,000	X	R&D Center City of Jackson Gulf Reg. Plan Comm Hinds-Madison, etc.	616,000 50,000 78,500 78,500	3-14-72 3-14-72 3-14-72 3-14-72	Comp. Planning Assistance Statewide Comp. Planning Assistance for Jackson Comp. Planning Assistance for Gulf Region Comp. Planning Assistance for Jackson SMSA
Housing Act of 1964 Sec. 701 As Amended P.L. 83-560	To strengthen planning and decision making capabilities of chief executive of state, areawide and local agencies and thereby promote more effective use of the Nation's physical, economic and human resources. A broad range of planning and management activities.	HUD Community Development (202) 755-5435	25,000 - 1,500,000	410,000	X	Roselle Baldwyn Cortih Cortih Nelson Wesson West Provost Winona Park System Park System Harrison Waterway Dist. Hollandale-Wash. Co. Rec. Dist.	148,000 250,025 266,500 164,400 378,500 289,900 386,200 10,000 80,782 190,488 42,587	5-30-72 9-21-72 9-21-72 9-21-72 9-21-72 9-21-72 9-21-72 5-31-72 6-5-72 6-23-72 8-9-72	Water and Sewer Improvements Water Distribution System Improvements Construct Well, Chemical Feeders, etc. Construct Well, Chemical Feeders, etc. Water Dist. Construct Water System Improvements Improvement to Water System Develop City Park Further Develop Paul Johnson State Park Further Develop Roosevelt State Park Improve Okatbee Creek Water Park
Housing and Urban Development Act Sec. 702 P.L. 87-117 42 USC 3101	BASIC WATER AND SEWER FACILITIES To provide grants to construct water facilities and sewerlines. This includes eligible projects and facilities to store, supply, treat, purify or distribute water, sanitary sewer systems.	HUD Community Development (202) 755-5435	25,000 - 1,500,000	410,000	X	Roselle Baldwyn Cortih Cortih Nelson Wesson West Provost Winona Park System Park System Harrison Waterway Dist. Hollandale-Wash. Co. Rec. Dist.	148,000 250,025 266,500 164,400 378,500 289,900 386,200 10,000 80,782 190,488 42,587	5-30-72 9-21-72 9-21-72 9-21-72 9-21-72 9-21-72 9-21-72 5-31-72 6-5-72 6-23-72 8-9-72	Water and Sewer Improvements Water Distribution System Improvements Construct Well, Chemical Feeders, etc. Construct Well, Chemical Feeders, etc. Water Dist. Construct Water System Improvements Improvement to Water System Develop City Park Further Develop Paul Johnson State Park Further Develop Roosevelt State Park Improve Okatbee Creek Water Park
P.L. 88-578 As Amended by P.L. 90-401 P.L. 91-485 91-308 16 USC 4601	LAND AND WATER CONSERVATION FUND ACT To provide financial assistance to the states and subdivisions for acquisition and development of outdoor recreation areas and facilities.	Dept. of Interior Bureau of Outdoor Recreation	1,000 - 4,700,000	63,500	X	Harrison Waterway Dist. Pearl River Basin Div. Dist. Hampus City Park Perry Quin Park Park System Harrison Waterway Jackson Raleigh Pearl River Tombige River Valley Water Management Pascagoula Pearl River Pat Harrison Waterway Dist. Tombige River Valley Town of Rolling Fork Park Service City of Merion City of Outman Hollandale Wash. County Rec. Park System Wash. County Board of Super. City of Biloxi	60,106 63,075 7,113 136,256 162,978 28,983 80,106 87,613 1,740 50,932 22,114 24,192 265,246 23,000 6,300 152,300 5,350 4,325 10,584 28,650 1,500 35,749 10,500 11,240 285,008	8-9-72 10-18-72 10-10-72 7-21-72 9-12-72 7-4-72 9-17-72 4-3-72 11-14-72 11-22-72 7-3-72 7-24-72 6-30-72 6-29-72 6-6-72 1-10-72 1-26-72 1-13-72 4-24-72 2-3-72 2-3-72 3-31-72 3-20-72 3-10-72 2-23-72	Grant Increase for Development of Archsum Creek Water Park Acquisition of 45 Acres for Development of Summit Water Park Further Development of Quin Park Further Development of Flint Creek Park Yeone Park Camping Project City Park Dist. Riverside Park Golf Course Develop City Park Develop Monticello Water Park Acquire and Develop Old Natchez Trace Park Develop Beach Park Acq. of Land for Crossroads Water Park Little Black Creek Water Park Const. Natchez Trace Park Dev (line) Rolling Fork Parks Grant Increase Develop 9 Acre City Park Develop Playground for City Park Neighborhood Park at Hollandale Dev. of J.P. Coleman State Park T.P. Reynolds Park Development Purchase and Develop 9 Hole Golf Course
P.L. 88-578 As Amended by 16 USC 4601	For preparation and maintenance of statewide recreation plans. This includes new plans, surveys, technical studies, data collection and analysis.		2,000 - 500,000	55,000	X				

TABLE B-1
COMPILATION OF LEGISLATION (CONT.)

PUBLIC LAW OR STATUTE	TITLE - DESCRIPTION	FED. AGENCY DEPT.	RANGE OF ASSISTANCE	AVERAGE ASSISTANCE	MISS. PARTICIPATION YES NO	MISS. ADMIN. AGENCY	AMOUNT GRANTED	AWARD DATE	COMMENTS
64 Stat. 430 16 USC 777k	SPORT FISH RESTORATION ACT To support projects designed to restore and manage sport fish population. Assistance available for land acquisition, R&D and coordination.	Dept. of Interior Bureau of Sport Fisheries and Wildlife (202) 343-4172	134,350 - 671,750	246,800	X	Pat Harrison Waterway Dist. Pearl River Long Beach Port Park Sys. Game and Fish Com. Game and Fish Com. Game and Fish Com. Game and Fish Com. Game and Fish Com. Game and Fish Com. Game and Fish Com.	340,656 57,268 156,724 15,000 23,497 47,504 9,246 2,790 71,562 57,296 33,041	3/13/72	Purchase and Develop 1400 Acre Maynor Creek Wheat Park Columbus Water Park Dev. Dev. Recreation Facility Beach Div. Special Area Studies (Inc.) Central Miss. Reservoir Fish Survey Survey of Mercury and Pesticide Residues in Fish Weed Control and Fertilization of State Fishery Lakes Continental Grant Survey of Fish and Wildlife Reserves Statewide Wildlife Investigation Statewide Fire and Safety Program
60 Stat. 917 16 USC 669-669b 669c-1	WILDLIFE RESTORATION (Pittman Robertson Program) To support sound and substantial undertaking having the general objectives of restoring or managing wildlife population and for the preservation and improvement of hunting and related uses of resources or providing facilities and services for conducting a hunter safety program. These formula grants are available for land acquisition R&D and coordination.	Dept. of Interior Bureau of Sport Fisheries and Wildlife (202) 343-4172	190,320 - 1,950,000	650,100	X	Game and Fish Com. Game and Fish Com. Game and Fish Com. Game and Fish Com. Game and Fish Com. Game and Fish Com. Game and Fish Com.	106,374 8,297 2,475 6,000 236,207 19,484 13,964 1,018	6-7/72 8-29/72 9-7/72 6-12/72 6-6/72 6-2/72 6-22/72	Renewal of Statewide Wildlife Development Program Office Rental Tech Assist to Small Pond Owners Renew Statewide Upland Game Mgmt. Area Project Renew of Wildlife Coward Proj Gun Safety Program Purchase 2 Radios Fish Management Survey of Fish and Wildlife Resources Statewide River Basin Survey

TABLE B-1 COMPILATION OF LEGISLATION (CONT.)

PUBLIC LAW OR STATUTE	TITLE - DESCRIPTION	FED. AGENCY DEPT.	RANGE OF ASSISTANCE	AVERAGE ASSISTANCE	MISS. PARTICIPATION YES NO	MISS. ADMIN. AGENCY	AMOUNT GRANTED	AWARD DATE	COMMENTS
P.L. 98-685 16 USC 470	NATIONAL HISTORIC PRESERVATION ACT To prepare comprehensive statewide historic surveys and plans for the preservation, for public benefits, of districts, sites, buildings, structures and objects significant in American history, architecture, archeology and culture.	Interior National Park Service 202-243-2973	\$50 - 3,000,000	100,000		Archives & History Archives & History	14,574 75,000	5-17-71 1-31-72	Purchase Land for Grand Village of Natchez Survey of historic site preservation planning
P.L. 87-70 Sec 705 42 USC 1900		HUD Comm. Dev. Dept.				Bigg Comm Laurel Pleasure City of Anny	294,228 50,000 30,225 31,153	6-20-72 6-15-72 6-2-72 4-14-72	Historic Preservation of Jefferson College Develop City Parks Dewey Beach Park Recreation Facilities Landscaping Downtown Park
P.L. 86-379 42 USC 19611	WATER RESOURCES RESEARCH ACT To support research into any aspects of water problems related to the mission of Department of Interior.	Interior Office of Water Resources Research	20,000 - 150,000	65,000		Miss. State U. Town of Inverness City of Greenville City of Jackson	140,000 18,124 84,425 500,000	7-01-72 4-3-72 3-30-72 3-15-72	Fostering Water Research & Training Beautification Program of Town of Inverness Beautification of downtown Greenville Acq. and Dev. of Parks
P.L. 91-258 84 Stat 219	AIRPORT DEVELOPMENT AID PROGRAM To assist public agencies in the development of a nationwide system of public airports. Grants can be used for land acquisition, site preparation, construction of runways, aprons, roads, within airport boundaries, navigational aids.	Dept. of Transportation FAA	not less than 5,000	500,000		Garlinh Holy Springs Houston Kosciusko McComb Vicksburg Vazco	110,000 262,380 33,700 34,850 31,600 13,800 10,000	11-22-72 6-27-72 6-1-72 6-27-72 6-12-72 6-23-72 5-24-72	Develop a comprehensive plan for Turner Field Airport Development Airport Development Airport Development Airport Development Airport Development Planning Program for Barner Field Support
	Assistance for planning master airport plan.		system plan 20,000 - 750,000 master plan 5,000 -	200,000 35,000		City of Jackson City of Brizoni	218,595 2,250	4-5-72 2-23-72	Acquire land for Future Airport Development Grant Increase for Airport Project
P.L. 90-485 82 Stat 815 P.L. 91-605 84 Stat 1713 P.L. 89-574 80 Stat 766	FEDERAL AID HIGHWAY ACT To assist state highway department in cost associated with planning, engineering, right-of-way acquisition, new construction, road improvements.	DOT Federal Highway Admin.	1082 - 366,786,322	28,834,486	X				received \$51,358,550 in Fed. govt for highway design construction etc. in FY 71 via various grants
P.L. 91-483 P.L. 88-365 78 Stat 302 49 USC 1801	URBAN MASS TRANSPORTATION TECHNICAL STUDIES GRANTS To assist in planning, engineering, and designing of urban mass transportation projects. These grants may be used for studies relating to management, operation, capital requirements and economic feasibility, also for preparation of engineering and architectural surveys, plans, spec, etc.	DOT Urban Mass Transportation Admin.	10,000 - 2,000,000	180,000		City of Meridian	13,333	3-1-72	Tech Study grant for transit improvement

It is noted that the survey does not include such programs as model city, civil defense, law enforcement, health, and disaster programs. These were purposely excluded due to their apparent indirect relationship with coastal zone management.

3. COASTAL ZONE MANAGEMENT ACT OF 1972

The Coastal Zone Management Act of 1972 (the Act) provides, among other things, outright grants to the states for the purpose of assisting in the development of a management program for the land and water resources of their coastal zones (Sec. 305a). The management program must consist of an inventory of coastal zone resources within a boundary which is to be defined and adapted by the state. It also must include a management organization and the means by which the state will exercise control over the coastal zone. The consolidation of laws can be extremely useful in preparation of the program in order to review any significant legislation that affects state control over the coastal zone.

The Act is two-fold in nature in that after the initial funding for developing a program, provision is made for grants to the states for administering the program. Also, it provides funding to assist in acquiring certain coastal lands. The Coastal Zone Management Act of 1972 is presented in Appendix F.

4. OMB CIRCULAR NUMBER A-95

The Executive Office of the President, Office of Management and Budget, has issued Circular Number A-95 to foster the most effective use of various local and regional state planning agencies. The procedures of this circular probably will be those required when a state applies for grants for coastal zone management planning. Circular Number A-95 imposes on the state an obligation of evaluation, review and coordination of Federal and Federally assisted programs and projects.

Circular Number A-95, a copy of which has been delivered to MMRC, promulgates regulations which provide, in part, for:

- (1) Encouraging the establishment of a project notification and review system to facilitate coordinated planning on intergovernmental basis for certain Federal assistance programs.
- (2) Coordination of direct Federal development programs and projects with state, regional, and local planning and programs.
- (3) Securing the comments and views of state and local agencies which are authorized to develop and enforce environmental standards on certain Federal or Federally assisted projects affecting the environment.

The circular ties together parts of three Federal acts, which when reviewed as a whole, provides for the objectives as cited above. The three acts are:

- (1) Sec. 204 of the Demonstration Cities and Metropolitan Development Act of 1966.
- (2) Titles IV of the Intergovernmental Cooperation Act of 1968.
- (3) Section 102(2)(c) of National Environmental Policy Act of 1969.

This review is accomplished through a system of state clearinghouses (Table B-2).

TABLE B-2

**DESIGNATED CLEARINGHOUSES APPLICABLE TO THE
MISSISSIPPI COASTAL ZONE
(PURSUANT TO OFFICE OF MANAGEMENT AND BUDGET CIRCULAR No. A-95)**

State Clearinghouse	Jurisdiction
<i>Coordinator of Federal-State Programs Office of the Governor 510 Lamar Life Building Jackson, Mississippi 39201</i>	State of Mississippi
Metropolitan Area and Metropolitan Clearinghouse	
<i>Gulf Regional Planning Commission Post Office Box 1346 Gulfport, Mississippi 39501</i>	Hancock, Harrison, Jackson, and Pearl River Counties
Regional Clearinghouse	
<i>Southern Mississippi Planning and Development District Post Office Box 2057 Hattiesburg, Mississippi 39401</i>	Covington, Forrest, George, Greene, Hancock, Harrison, Jackson, Jefferson Davis, Jones, Lamar, Marion, Pearl River, Perry, Stone, and Wayne Counties

In compliance with Circular Number A-95, Mississippi adopted February 7, 1972, an implementing procedure, which is quoted below, and a check sheet entitled "Notice of Intent to Apply for Federal Assistance" (Figure B-1).

"Subject: Procedure for obtaining coordinated review of project plans requiring Governor's review and associated environmental impact statements.

"Scope: In order to comply with existing Federal regulations (A-85, A-95, etc.), 'action' agencies such as the Corps of Engineers, Soil Conservation Service, Bureau of Reclamation, Environmental Protection Agency, and others, must provide an opportunity for appropriate State agencies to conduct a thorough technical review and offer comments on all preliminary project plans and associated environmental statements. Occasionally, a position statement from the Governor of the respective State involved is requested, depending upon the magnitude of the proposed project. When the technical review is completed, the State Clearinghouse will then issue a clearance statement verifying that the review was conducted in compliance with all appropriate regulations.

HAROLD T. WHITE
COORDINATOR OF
FEDERAL-STATE PROGRAMS

State of Mississippi



OFFICE OF THE GOVERNOR

NOTICE OF INTENT TO APPLY FOR FEDERAL ASSISTANCE

PLEASE DO NOT WRITE IN THIS BLOCK						
STATE CLEARINGHOUSE NO. (1-8)				CT (9)		
(10-11) APPLICANT'S PROJECT NAME (12-71)						
CONTACT PERSON: Name (12-45)				Area (46-48)		Telephone (49-55)
				601		Ext. (56-59)
APPLICANT ORGANIZATION (12-45)						
APPLICANT ADDRESS: Street or P. O. Box (12-45)				City (49-55)		County (61-75)
						Zip (76-80)
APPLICANT TYPE: (Check Only ONE Box)						
State <input type="checkbox"/> 12		Interstate <input type="checkbox"/> 13		County <input type="checkbox"/> 14		City <input type="checkbox"/> 15
School District <input type="checkbox"/> 16		Special Unit <input type="checkbox"/> 17		Community Action <input type="checkbox"/> 18		Sponsored Organization <input type="checkbox"/> 19
Other * <input type="checkbox"/> 20						
Is State Plan Required? YES <input type="checkbox"/> 21 NO <input type="checkbox"/> 22		Environmental Impact Statement Required? YES <input type="checkbox"/> 23 NO <input type="checkbox"/> 24		PROJECT IMPACT CITY (25-30)		PROJECT IMPACT COUNTY (40-54)
Is Project Under A-55 Jurisdiction? YES <input type="checkbox"/> 55 NO <input type="checkbox"/> 56		REGIONAL CLEARINGHOUSE NOTIFIED		METRO CLEARINGHOUSE NOTIFIED		
PROJECT DESCRIPTION: Nature, Purpose, Beneficiaries, Explanation of Items Marked with ****						
PLEASE DO NOT USE (12-41)						
PLEASE DO NOT USE (12-41)						
FEDERAL AGENCY (12-45)				FEDERAL SUB-AGENCY (46-75)		
A						
B						
C						
D						
Federal Catalog Number (12-17)				FEDERAL PROGRAM TITLE (18-77)		
A						
B						
C						
D						
Federal Grant (12-17)		Federal Loan (20-27)		State Funds (28-33)		Local Funds (36-43)
Other * Funds (44-51)		Total (52-60)				
A						
B						
C						
D						
Total Federal Grants		Total Federal Loans		Total State Funds		Total Local Funds
Total Other Funds		Project Total				

Mail completed form to the STATE CLEARINGHOUSE FOR FEDERAL PROGRAMS:
With a copy to Regional and/or Metro Clearinghouses as appropriate.

Federal-State Programs
Office of the Governor
510 Lamar Life Building
Jackson, Mississippi 39201
Telephone: (601) 354-7570

Form SCHE-01 7/71

Figure B-1 Mississippi's Check Sheet In
Compliance with Circular No. A-95

**INSTRUCTIONS FOR PREPARATION OF
NOTICE OF INTENT TO APPLY FOR FEDERAL ASSISTANCE**

Please Type or Print Legibly

- Line 01. **APPLICANT'S PROJECT NAME:** A brief descriptive title for the project. Include location where feasible, e.g., "Vicksburg Airport Expansion."
- ESTIMATED SUBMISSION DATE:** Earliest date you plan to submit application to appropriate federal agency.
- Line 02. **CONTACT PERSON:** Name and telephone number of person authorized to act on behalf of the applicant. Fill in correct area code if outside the State of Mississippi. Use numbers only (no letters) in telephone number.
- Line 03. **APPLICANT ORGANIZATION:** The governmental or other authorized unit applying for federal assistance.
- Line 04. **APPLICANT ADDRESS:** The mailing address of the applicant organization.
- Line 05. **APPLICANT TYPE:** Check the single box that best describes the applicant organization. Explain "Other" in Line 6, if checked. Answer the three yes/no questions if known. If environmental impact statement is required, please attach it.
- PROJECT IMPACT CITY, PROJECT IMPACT COUNTY:** Location receiving primary benefit from project. If impact is Statewide or regional, state this under "COUNTY". Fill in name(s) of REGIONAL and METROPOLITAN CLEARINGHOUSES notified.
- Line 06. **PROJECT DESCRIPTION:** A concise, narrative description of the type, purpose, general size or scale, and beneficiaries of this project. Use this space also for clarification of other entries.
- Lines 10-11. Please do not use these lines.
- NOTE:** For the following three groups of lines (12-15, 16-19, 20-23), begin with all lines marked "A" and fill in information pertaining to the first (or only) applicable federal agency. Lines marked "B", "C", and "D" are used only when assistance is requested from more than one agency.
- Lines 12-15. **FEDERAL AGENCY, FEDERAL SUB-AGENCY:** The federal agency and sub-agency from which assistance will be requested, e.g., Department of Agriculture, Farmers Home Administration.
- Lines 16-19. **FEDERAL CATALOG NUMBER, FEDERAL PROGRAM TITLE:** From the Catalog of Federal Domestic Assistance, if available.
- Lines 20-23. Enter estimated whole dollar amounts under appropriate headings. Explain source of "Other" funds in Line 6.
- Line 24. Vertical totals of Lines 20-23. Complete even if assistance is requested from only one federal agency.

*Figure B-1 Continued Mississippi's Check Sheet in
Compliance with Circular No. A-95 (reverse side).*

Appendix C

THE MISSISSIPPI GULF COAST

The Gulf Coast of Mississippi occupies a short stretch of coast east of the Mississippi River delta and is entirely a mud and sand environment except for a few man-made structures. The major geographical feature of the Mississippi coastal zone is the Mississippi Sound, a elongate body of water partially enclosed by a series of barrier islands. The sound which is approximately 80 miles long by 10 miles wide has an average depth of about 10 feet. The eastern end of the Sound is at Grant's Pass near the lower end of Mobile Bay and stretches westward terminating at Grand Island, Louisiana at the eastern end of Lake Borgne. Most of the bottom topography consists of muds displaced by sands at the barrier islands and along the mainland. However, several oyster reefs, especially near Bay St. Louis, provide a firm substratum in the mud region.

The barrier islands, lying along the southernmost flank of Mississippi Sound on an east-west axis, are long and narrow. Although they are subject to slight shifting in position, the main parts of these islands have been in existence for a long time (75,000 years) and all contain considerable areas forested with Caribbean Pine.

The term estuarine zone, as defined by federal law means "an environmental system consisting of an estuary and those transitional areas which are consistently influenced or affected by water from an estuary such as, but not limited to, salt marshes, coastal and intertidal areas, bays, harbors, lagoons, inshore waters and channels, and the term estuary means all or part of the mouth of a navigable or interstate river or stream or other body of water having unimpaired natural connection with open sea where the water is measurably diluted with fresh water derived from land drainage."

The Mississippi estuarine coast lies within the Gulf of Mexico Estuarine Zone which extends from Cape Romano in southwestern Florida to the Texas-Mexico border near Brownsville. This entire coastal zone (Figure C-1) borders a wide coastal plain of generally low relief. The dominant feature of the Mississippi Coastal Zone is the river drainage areas of the Pearl and Pascagoula with complex marshes and barrier islands protecting the Mississippi Sound. A wide continental shelf extends all the way around the Gulf of Mexico in which warm tropical waters are moved gently by weak currents and small tidal ranges. Heavy rainfall over most of the area brings sediments from the broad coastal plain to be deposited in the estuarine zone. Most of the drowned river valleys have evolved to a point intermediate between those of the Middle and South Atlantic Regions -- barrier islands are extensive and have large shallow bays behind them.

The climate along the Mississippi Gulf Coast is sub-tropical with mild winters and temperate summers. Average winter temperatures for January are 53 degrees and average summer temperatures are 81 degrees with an annual temperature average of 68 degrees. Due to the southerly winds from the Gulf of Mexico, the summer temperatures average approximately 10 degrees cooler than the interior of Mississippi. The annual rainfall for Mississippi is a plentiful 63 inches per year with precipitation heaviest during the spring and early summer months. Under normal seasonal conditions diurnal tidal conditions exist. Tidal variations are approximately 3.2 feet in range with a mean tide level of 0.8 feet.

Some 30 to 40 polar air masses penetrate the Gulf of Mexico from the North American continent each winter. During the year some 15 to 20 of these bring strong northerly winds to the Gulf area and are called "Northers." Winds from 25 to 50 knots or more any occur in severe northers, which ordinarily occur from November to March. Severe northers usually occur from December to February, but occasionally later. They generally last about a day and a half, but severe storms may endure for three or four days.

Of the large number of tropical cyclones originating in the North Atlantic and Caribbean Sea that enter the Gulf of Mexico, combined with those which are born in the Gulf area, many strike some part of the northern Gulf coast. Some of these storms find their way into or near the Mississippi Coast, causing wind and water damage.

Since 1900 the centers of three great hurricanes have passed over, and numerous other hurricanes have affected the Delta area. In 1965, Hurricane Betsy brought destructive winds to that area and caused over 50 deaths from drowning. Extreme winds of Betsy were estimated at 108 knots. Camille, which struck the area in 1969, was the greatest hurricane ever recorded in North America.

The data below show the frequency of tropical cyclones and hurricanes in the study area:

	Total Number 1886 - 1972	Average Number of Years between Occurrences
Tropical Cyclones	43	2
Hurricanes	20	4
Great Hurricanes	3	28

Although natural conditions of tide, runoff, and climate are generally favorable to estuarine life in this Gulf zone, man has degraded many estuaries by pollution, land occupation, drainage of wetlands, and diversion of runoff. The concentration of human activity combined with the distinctive natural qualities of estuaries intensified by interactions and conflicts among uses magnifies the impact upon this exceptionally productive environment. Many uses of estuaries modify or affect the land and water environment more or less seriously. Certain estuarine uses such as those associated with extensive dredging and filling of marshes or with the discharge of toxic materials can result in the complete disruption of the delicate ecological balances resulting in the destruction and loss of vital plant and animal life.

Most estuaries have been modified more or less severely throughout the coastal United States. Reports developed by the U.S. Department of Interior in their National Estuary Study in 1970 show that Mississippi's coastal zone makes up approximately 2.4 percent of the Gulf of Mexico Estuarine Zone. Within this 2.4 percent approximately 20 percent has been characterized as severely modified as shown in Figure C-1 while the remainder of the states coastal area has been classed as moderately modified. From a national viewpoint, Table C-1 shows some of the size and shape comparisons among the biophysical estuarine regions of the United States.

The characteristic topographic feature of the Gulf Coast of Mississippi is the coastal meadows or flatwoods. The flatwood section varies in elevation from sea level to about 25 feet and extends across the three counties bordering the Mississippi Sound. Soils of the Mississippi coastal zone region can be characterized by five basic groups:

Tidal Marshes

Lands associated with salt or brackish water and located along the shoreline and estuarine coast consist of decomposed marsh plants over mineral soil.

Alluvial Land

Lands characterized by stratified material of varying texture resulting from deposition of river discharges and characterized by numerous oxbow lakes, old river runs, and sloughs. Alluvial lands are densely forested with ash, tupebo-gum, sweet gum, oaks, and pines while the sloughs contain bald cypress and water tupebo.

Loamy Sands

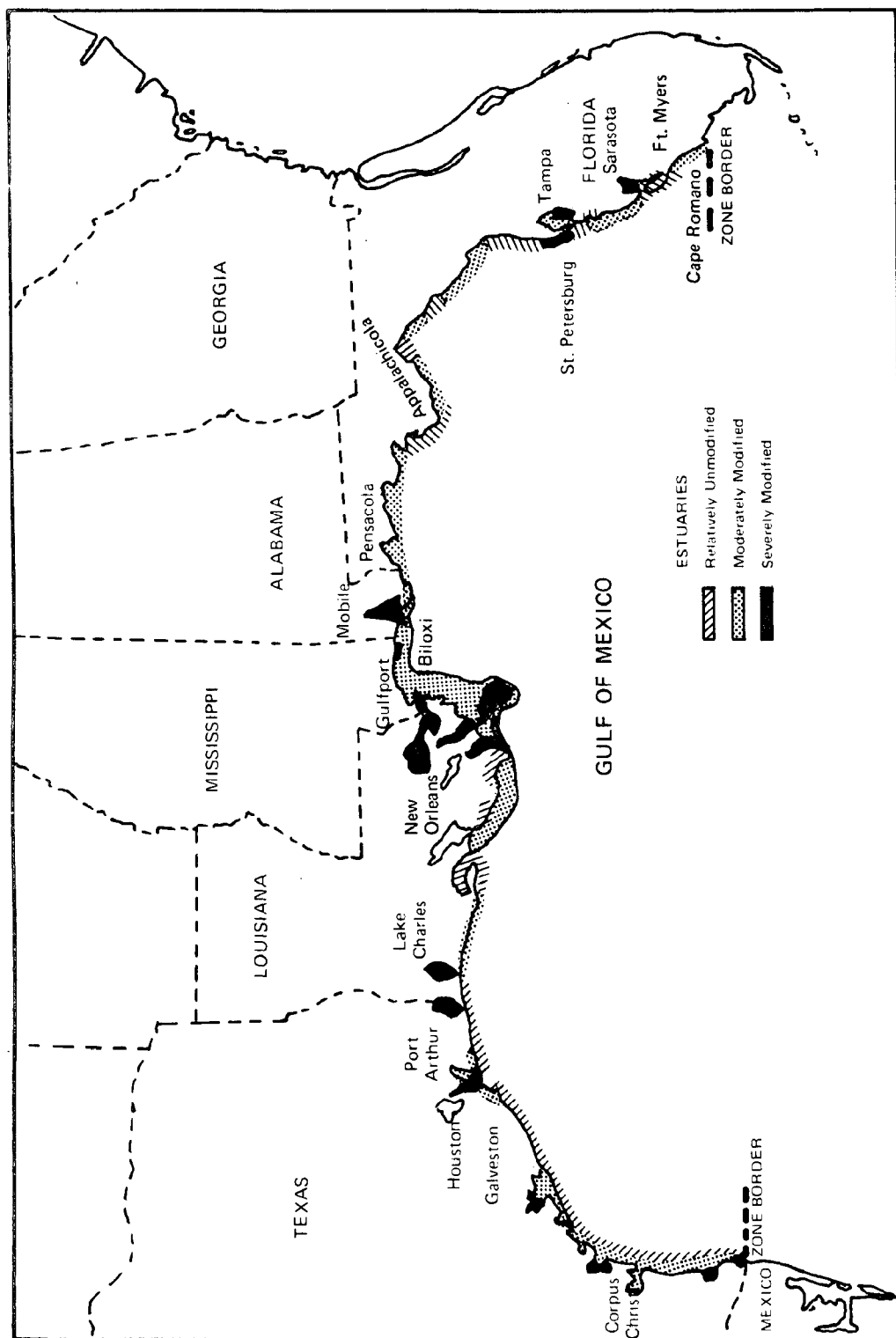
Soils found in the southernmost portion of the Mississippi flatwood regions with a sloping topography of 0 to 5 percent, which is well drained. These strongly acidic soils contain little organic matter and have a low natural fertility value. With proper fertilizing and irrigation loamy sands are adequate for lawns, truck farming, and pastures.

Sandy Loams

Generally found in southern portions of the flatwood areas distinguished by a sandy loam surface overlaying sandy loam subsurface with a topographic slope ranging from 0 to 8 percent. Like loamy sands, this soil is well drained and highly acid with a low amount of organic material. Sandy loams are well suited to pine and live oak trees. Runoff is a slight problem in areas where the soil is bare, thus presenting some limitations on urban development.

Silty Loams

Land interior to the flatwoods section extending to sloped uplands of the Coastal Plain. Consisting mostly of silt loam surface layers overlaying silt loam upper subsoils and clay loam lower subsoils these soils are acid, poorly drained, and have developed on a near level topography with a slight slope of 0 to 2 percent. Moderately fertile with organic matter, this land is suitable for timber production.



73033012

Figure C-1 Modification of Estuaries Along the U.S. Gulf Coast

TABLE C-1. SIZE AND SHAPE COMPARISONS AMONG BIOPHYSICAL REGIONS

	North Atlantic	Middle Atlantic	Chesapeake Bay	South Atlantic	Caribbean	Gulf of Mexico	Pacific Southwest	Pacific Northwest	Alaska	Pacific Islands	Total
Ocean Coastline (Miles)	1358	1286	11.3	817	1542	2270	1194	669	14899	1194	25230
Tidal Shoreline (Miles)	4419	7992	5469	9793	3437	15476	3060	4793	33904	1323	89671
Estuarine Water Area (Sq. Miles)	3401	5130	4554	3973	717	10944	799	1946	14353	15	45832
Marsh Area (Sq. Miles)	97.6	603.1	595	2267	616.4	8427	191	44.5	NO DATA	15	12841
Coastal Counties Area (Sq. Miles)	11177	19237	13859	24839	9869	48151	51168	42768	334413	6703	552184
Descriptive Ratios:											
Tidal Shoreline/Ocean Coastline	3.3	6.2	408.0	12.0	2.2	6.8	2.6	7.2	2.3	1.1	3.6
Estuarine Water Area/Ocean Coastline	2.5	4.0	400.0	4.9	.46	4.8	.67	2.9	.96	.01	1.3
Estuarine Water Area/Tidal Shoreline	.77	.64	.83	.41	.21	.71	.26	.41	.42	.01	.5
Marsh Area/Ocean Coastline	.07	.47	53.0	2.8	.40	3.7	.16	.07		.01	.5
Marsh Area/Tidal Shoreline	.02	.08	.11	.23	.18	.54	.06	.01		.01	.1

Reference: National Estuarine Inventory

Data Sources: U.S. Coast and Geodetic Survey, Bureau of the Census

2 DEMOGRAPHY AND ECONOMICS

Hancock, Harrison, and Jackson counties border the Mississippi coastal zone. The three counties have interwoven and interdependent economic ties resulting from the major coastal highways and the L&N Railroad which link them and produce a chain-like pattern of growth. An example of this interdependence is the new planned community of Diamond Head in eastern Hancock County. This community was designed strictly residential with supporting commercial and recreational activities. Because industrial development was specifically eliminated, industrial services from nearby Hancock and Harrison Counties have been drawn upon. In essence, all communities make substantial and important contributions which are mutually beneficial, thereby making the chain-like growth pattern a practical approach to Mississippi Gulf Coast planning.

As with most population centers throughout the nation, population growth fluctuates according to the economic activity. A strong economy will increase the population within an area, as is the case in the Mississippi Gulf Coast Region. According to the United States Bureau of Census, the number of inhabitants between 1950 and 1970 increased from 148,000 to 267,746. Though Hurricane "Camille" caused a noticeable setback, new and old enterprises have been expanding. Viewing the present developmental rate, the area of the Mississippi Coastal Zone should excel present growth levels during the next two decades. The Gulf Coast Area Transportation Study predicts for 1990 that 437,000 of an estimated population of 591,000 will be living within the coastal sector. The remaining 118,000 will reside in the urban and rural areas immediately interior to the coastal zone.

The fastest growing county in the Gulf Coast Region is Jackson County, with a 58 percent population increase between 1960 and 1970. Jackson County was also responsible for 83.7 percent of the state population growth, an increase which has been fairly constant since the 1930's. This increase in population growth is a result of births and migrations to the state. Jackson County sustained the highest annual increase. Over 79 percent of the county's population was under 45 years of age, a fact resulting in an increase in marriages and births, which eventually create a demand for more housing, schools, and active recreation. The Mississippi Research and Development Center estimates the greatest concentration of growth during the next 15 years to be in the Moss Point-Pascagoula area (64 percent), with Ocean Springs attracting 20 percent of the total population increase and rural areas responsible for the remaining 16 percent. Wilbur Smith and Associates projects that Jackson County's labor force will increase from 32,500 to 80,500 within the next 20 years.

The existing land uses for the Mississippi Gulf Coastal Region can be categorized by the following: (1) residential, comprised of single-, two-, and multiple-family dwellings; (2) commercial establishments; (3) rights of way defined as streets, highways, public utilities, and railroads; (4) public and semipublic structures occupied by educational, recreational, and governmental bodies; (5) industrial usage, both light and heavy; (6) resource production including farms, dairies, commercial, and national forests; (7) bodies of water and undeveloped land; and (8) NASA. Table C-2 shows the three-county breakdown of these land uses as developed by the Gulf States Regional Planning Commission and Table C-3 shows the total land use for the Mississippi Gulf Coast. It is to be noted that Hancock County has twice as much industrial land usage as residential; Harrison County residential land outnumbers industrial land 7 to 1, and Jackson County has twice as much residential land use as industrial. However, most of Jackson County's industrial use is on coastal waterways.

TABLE C-2. PRESENT LAND USE FOR MISSISSIPPI COASTAL COUNTIES

	Ratios of Developed Land by Counties		
Land Use	Hancock	Harrison	Jackson
Residential	15.79	39.38	30.64
Commercial	1.37	4.14	3.02
Industrial	31.12	6.77	15.07
Public, Semi-Public	5.32	17.47	19.44
Rights-of-Way	46.40	32.24	31.83
Farmland	33.85	10.39	14.58
Orchards	9.22	2.80	1.26
Commercial Forests	56.93	54.17	71.71
National Forests	---	32.64	12.45

TABLE C-3. TOTAL PERCENTAGE OF DEVELOPED LAND FOR THE MISSISSIPPI COAST REGION

Rural Land	37.26
Urban Land	5.57
NASA and Military	6.96
Water Bodies	2.09
Tidal Marsh Land	3.87
Undeveloped	44.22

Due to a projected population increase by 1990, (504,000 people in urban areas and 87,000 in rural areas) a detailed space utilization plan has been developed. Residential occupation will account for 216,570 acres in the region, with three-acre lot establishments responsible for 23.7 percent of the land use. Due to the importance of the tourist trade, space has been allocated for resort use amounting to 3,500 acres. Approximately 2,800 acres have been reserved for a university center of vital importance to social and economic development of the region. Major commercial development will concentrate on central business districts, community and regional shopping centers, and major highway concentrations, all aimed at maximizing shopper convenience and minimizing the congestion and environmental unsightliness of existing strip commercial developments. Space allocation for major commercial use totals 11,700 acres.

Major industrial improvements are proposed in accordance with site suitability and ease of access. A new industrial park will be constructed in the immediate vicinity of the university complex, creating a complementary educational-industrial relationship. Industrial land use is allotted 28,600 acres.

NASA contemplates no future expansion of land use, although there will be a more intensive agricultural use of the 116,300 acres already utilized.

Some 528,000 acres have been allocated to forestry and agriculture. The South's favorable climate will produce a wide range of feeds making production of beef cattle increasingly attractive. The planning committee also has provided space allocation of 370,500 acres for intensive agriculture studies, concentrating on the need for greater food production to meet future regional, national, and international requirements.

National forest lands are used mostly for recreation, timber production, wildlife, and grazing. Although the size of the area is basically stabilized, space is allocated for the future development of 114,300 acres.

Resource conservation, comprising flood plains, tidal marsh lands, and wildlife refuges for preserving the natural state of these undeveloped areas, will total 233,400 acres, of which 60,600 acres are tidal marsh. Major recreational facilities, exclusive of the Gulf Islands National Sea Shore, is approximately 26,800 acres. To augment ground water supplies, seven reservoirs are to be developed on some 15,600 acres. Table C-4 shows a tabulation of projected space allocation by 1990.

The employment characteristics for the coastal counties of Mississippi are characterized for 1970 in Table C-5.

The "Mississippi Gulf Coast" is a thin strip of land made up of sandy beaches, commercial areas of motels, hotels, and restaurants, and heavier industrial areas near Pascagoula. The State has 44 miles of general coastline which represents about 2.6 percent of the entire Gulf Coast. The major part at Gulfport has contributed and will continue to contribute substantially to the state's total economy, and particularly to Harrison County. The Harrison County Industrial Waterway and Ingalls Shipbuilding Corporation in Pascagoula have been the largest single contributors to the Mississippi Gulf Coast's industrial economy. As a result, employment growth has been well diversified and employment in manufacturing, government, and finance/insurance/real estate has shown highest increases in the past two decades.

TABLE C-4. SUMMARY TABULATION OF REGIONAL SPACE ALLOCATIONS BY 1990

Category	Total Acres
Residential Occupation	216,570
Tourist Development	3,500
University Complex	2,800
Major Commercial Use	11,700
Major Industrial Use	28,600
NASA and Military Installations	116,300
Forestry and Agriculture	528,900
Food Production	370,500
National Forest Lands	114,300
Resource Conservation	233,400
Recreation	26,800
Water Areas (Reservoirs)	15,600
Total Land Allocation	1,668,970

TABLE C-5. EMPLOYMENT IN THE THREE-COUNTY AREA

Percentage of Employment in the Region - 1970			
Type of Employment	Hancock	Harrison	Jackson
Unemployed	5.6	4.2	4.6
Manufacturing	19.0	12.1	41.0
White Collar	47.7	55.2	42.6
Government	21.9	25.5	15.9

The largest single source of wages in the three-county area is the government, which provides 30 percent of the total employment, while manufacturing accounts for approximately 26 percent of all wages and salaries on the Gulf Coast. The seafood processing industry employs about 800 people and the industries supporting seafood processing employ approximately 500 people. Data compiled by the U.S. Census Bureau are shown in Table C-6 which represents the economic contribution made by industries associated with the Mississippi Coastal Zone. From the figures on Table C-6, which are less than ten years old, the three counties along the Mississippi Coastal Zone contribute approximately 12.7 percent of the state's manufacturing, 10.3 percent of the Mississippi retail sales, and 4.1 percent of the sales of farm products.

3 NATURAL ENVIRONMENT

The natural quality of waters constituting the Mississippi Coastal Zone is the product of both land and water. From the land, erosion and solution in river waters and the drainage of wetlands bring suspended and dissolved minerals, while decaying vegetation contributes dissolved organic material. As generally understood, the wetlands of Mississippi are composed of submerged and low lying marshlands bordering the Mississippi Sound, which are influenced by normal tidal variations. Of a total of 1,170,000 acres within the three county area, approximately 66,000 acres are soft marsh areas and 20,000 acres are considered submerged vegetation areas. This represents about 5.64 percent of the three counties which make up the Mississippi Coastal Zone.

Estimates by the Gulf Coast Research Laboratory and the Gulf Regional Planning Commission state that annual dry weight production of marsh vegetation is approximately 3,000,000 tons per year. Approximately 80 percent of the commercial marine fishery and 29 sports fishes depend on these marshlands for some part of their life cycle. It is estimated that each acre of wetlands produces \$400 per acre per year in new seafood.

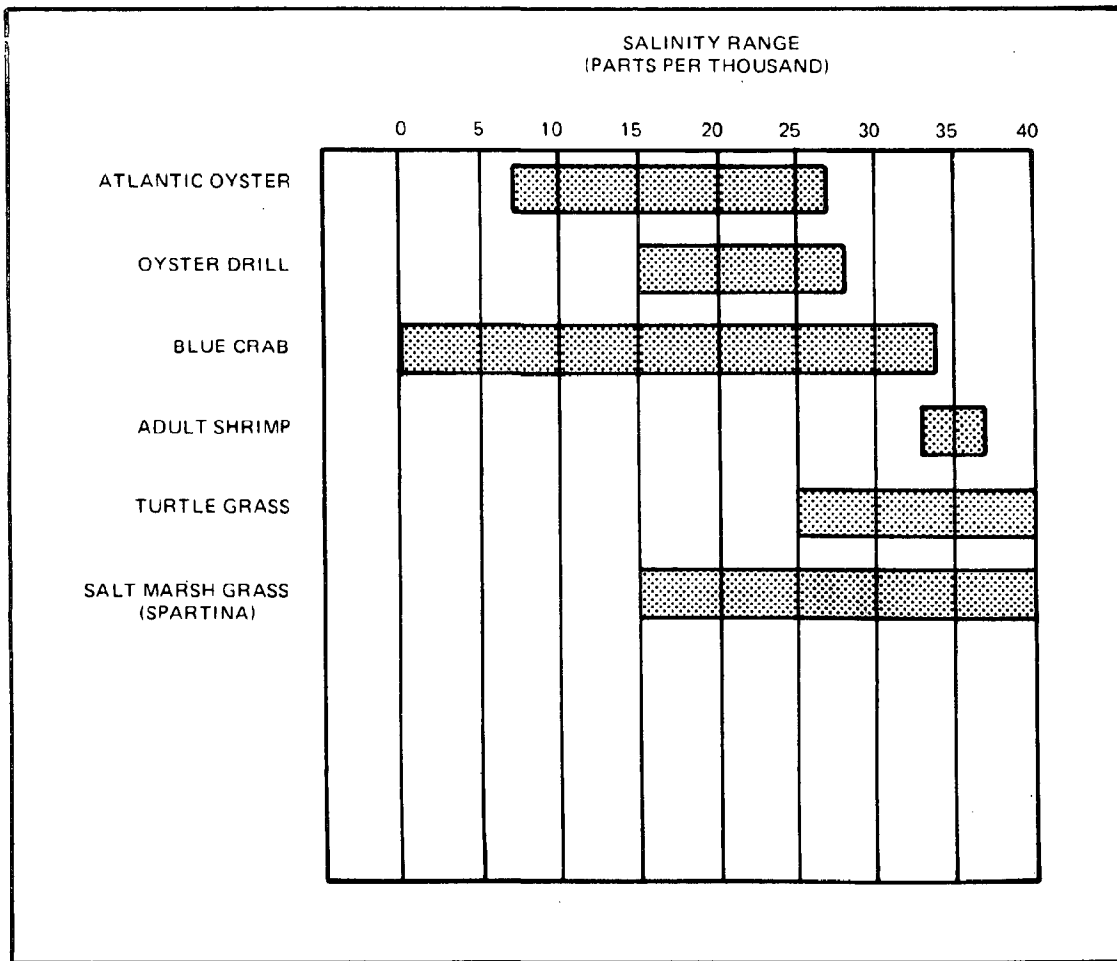
Within the province of the estuarine zone, seawater coming from the Gulf of Mexico meets and mixes with relatively fresh waters. This seawater contains approximately 3 percent dissolved solids with negligible amounts of organic matter, mostly in the form of detritus. As a result, salt concentrations within this coastal zone range from almost complete seawater during dry seasons to almost unmeasurable amounts present in some of the river mouths. This interface between fresh and salt water is a region of complex chemistry where some materials are precipitated or otherwise changed. This changing chemistry is particularly acute in subtropical areas with high amounts of organic input as is the case in the Mississippi coast. The natural effects on biologically significant forms can have far reaching results. As an example, Figure C-2 shows the salinity ranges for selected fauna and flora of the coastal zone. As can be seen from Figure C-2, when the salinity drops below 15° per thousand in an estuarine environment by increases in fresh water, the oyster drill predators cannot tolerate low concentrations. The result is that oyster reefs tend to expand in a healthy fashion. Also, one can see the need for variation in salinity concentrations if all stages of the life cycles of important commercial fauna are to spawn, mature, and migrate offshore.

Since estuarine water quality devoid of human impact is dependent on the ground over which the water flows, the conditions of Mississippi's coastal wetlands and stream systems ultimately determine the relative health and stability of the natural environment of this

**TABLE C-6. APPROXIMATE ECONOMICS OF THE MISSISSIPPI COASTAL ZONE
COMPARED TO STATE AND NATIONAL FIGURES**

(All figures in thousands of dollars)

	Manufacturing Value	Wholesale Sales	Retail Sales	Farm Products	Seafood Products
United States	192,330,126	358,385,749	224,201,777	35,305,894	914,492
Mississippi	1,016,962	1,786,664	1,914,221	724,861	26,199
Mississippi Coastal Counties	129,086	98,757	196,769	2,959	26,199



73033A013

*Figure C-2. Common Salinity Ranges of Occurrence for Some
Estuarine-Dependent Plants and Animals*

region. Confounding these natural processes are effects and the resulting impact placed on estuarine waters by man's intrusion and utilization of these systems. Some examples of man's intrusion into coastal zone waters are problems associated with sewage treatment, water, silt and sediment control, and discharges of industrial effluents.

The treatment of waste waters, both domestic sewage and industrial effluents, usually depends on the activity of living organisms. This biological oxidation process takes place in "filter beds" and activated sludge plants. However, in many cases these facilities are operated by personnel not familiar with these biological processes and the efficiency of such a system is not monitored properly. Also, as in the case of the Biloxi Back Bay area, existing sewage, septic, and industrial facilities simply are no longer adequate to handle the increases in population and usage. Further, these inputs from industrial discharges can inhibit natural biological processes resulting in stagnant anoxic conditions. Consideration of critical environmental problems of the Mississippi Gulf Coast must rank water pollution a high priority item. The significance of these pollutants from domestic and industrial waste and by products of agriculture and food processing must be of great concern to the future plans for management and further development of the coastal zone. Presently, improperly functioning septic tanks are quite numerous and major improvements to municipal and industrial treatment facilities are required.

Studies through the three major state universities and in conjunction with the Ocean Springs Research Laboratory are being carried on to establish the base line data on water conditions in the Bay St. Louis area, which is near heavily fished oyster grounds.

4 COASTAL ZONE RESOURCES

Estuaries comprise some of the worlds most productive environments. They not only support the valuable commercial and sport fisheries, but also act as an important nursery and rearing area where fishes and shellfish grow to near maturity. The commercial fish and shellfish landings for the Gulf States in 1971 was 2,926,000 pounds with a dockside value of \$199,851,000. This accounts for 42 percent of the total United States landings. The Mississippi catch for that same year amounted to 397,605,000 pounds worth \$13,380,000 at dockside which represented 18.9 percent of the Gulf States catch and 2.1 percent of the United States landings by dollar value. Estuarine dependent species (including menhaden, shrimp, oysters, crabs, and certain other bottom fish) make up approximately 88.1 percent of Mississippi's catch by dockside price. Gunter (1967) reported that estuarine dependent species make up 97.5 percent of the total commercial fishery catch of the Gulf States. Menhaden (*Brevoortia* sp.) support the largest commercial fishery in North America with the biggest catches coming from the Gulf of Mexico. From 1959 through 1963 an average of 43,000 tons of industrial bottom fish were harvested annually from the northern Gulf of Mexico. As further exploitation of this fishery continues, these values will continue to increase.

It is apparent that if a high level of catches from commercial and sport fishes is to continue and increase, some degree of preservation of estuaries in their present condition is mandatory. These areas are the singlemost key factor to regional fisheries productivity. Once any acreage of these valuable wetlands and estuaries is lost, it is almost impossible to restore it to its former condition. Any alterations or modifications of these fertile coastal habitats could produce damaging effects which may be irreversible, and which would ultimately be detrimental to future stocks of commercial and sport fisheries along the Mississippi Coast.

Chapman (1968) reported that along the South Atlantic and Gulf Coasts during the past 20 years more than 200,000 acres of shallow coastal waters were lost due to dredging and land filling operations. Including the 126,000 acres of wetlands also lost, approximately 5.4 percent of the total coastal zone has been destroyed through man-made modifications.

Fishery resources in the Gulf of Mexico are primarily exploited in the estuaries and shallow continental shelf waters. Although most commercial species are estuarine dependent, adults of many are reflected in offshore fisheries. About 64 percent of the shrimp landed in Mississippi is caught in the Gulf offshore waters. The dependence of fish and shellfish on the estuarine zone is governed by particular environmental requirements for reproduction, food supply, or a combination of these. Estuarine dependent species are of three basic types:

1. Species Restricted to Estuaries

Among the relatively few species of fish and shellfish that complete their entire life cycle in the estuarine zone is the Atlantic (American) oyster. It will die after long exposure to fresh water, although it can stand limited periods of such exposure and can thrive in relatively high salinity water. The spotted sea trout occupies the estuary for all its life purposes and only occasionally leaves the estuary under unusual extremes of salinity and temperature.

2. Anadromous and Catadromous Species

Anadromous species pass through the estuarine zone on their journey from the sea to the freshwater environment where they spawn. Some species, such as the Pacific salmon, die after spawning and others, such as the striped bass, live to return to the estuarine zone and the sea. The young of all anadromous species spend varying periods of time in the freshwater areas where they were spawned, but all eventually migrate to the estuaries and then the sea.

There are few truly catadromous species that mature in the fresh or brackish water environments and then migrate to higher salinity waters of the estuary of the adjacent sea to spawn. The American eel and the blue crab are examples.

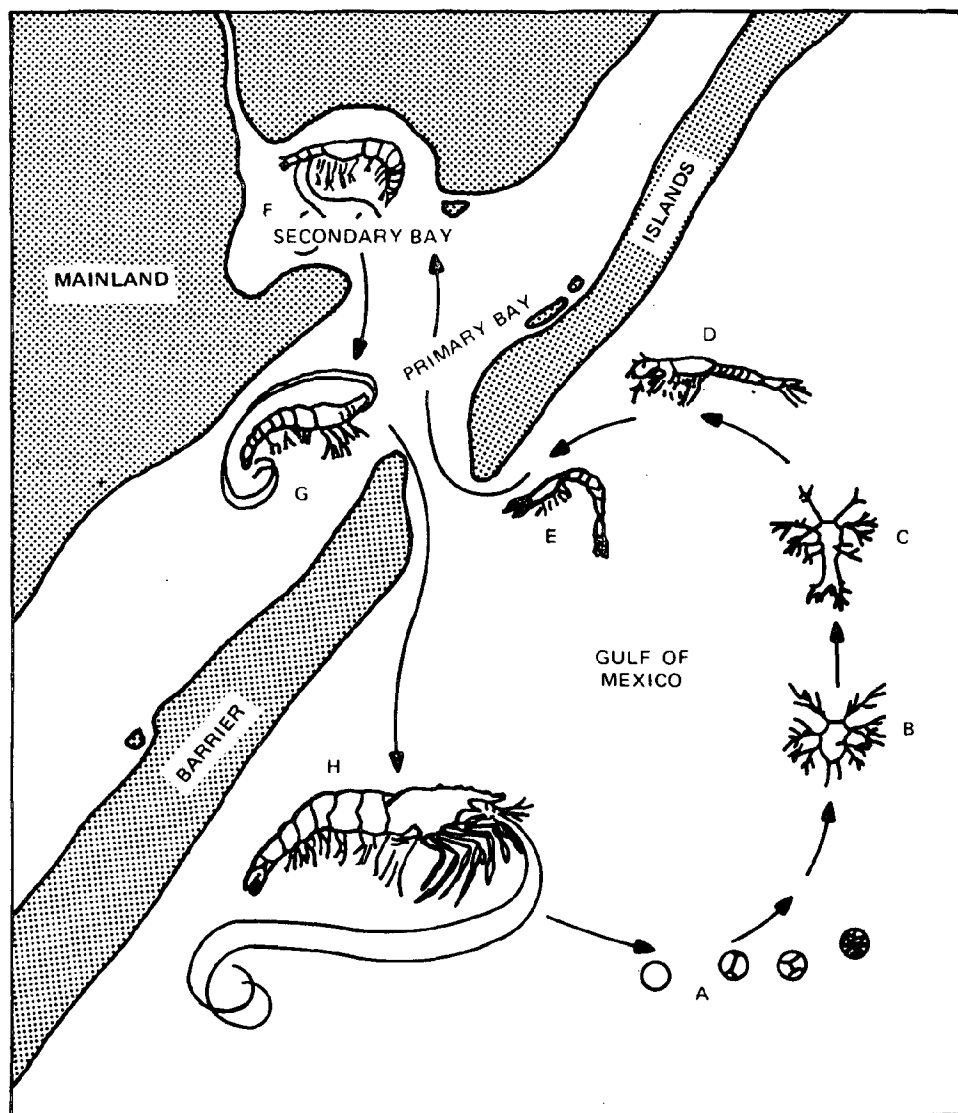
3. Migratory Estuarine Species

The great majority of estuarine dependent species fall under this classification. Some use the brackish and freshwater areas of the estuarine zone for reproduction; some as a source of food; some for shelter, either as adults or young; and some for all these reasons. They all have in common the basic need for both estuarine and ocean environments at some point in their life cycle. This group includes the great majority of fish and shellfish of direct importance to man; examples include shrimp, menhaden, flounders, and red drum.

Table C-7 shows the dependence of important fishery organisms to the Mississippi Coastal Zone and Figure C-3 demonstrates the typical life history of the Gulf of Mexico shrimp.

**TABLE C-7. ESTUARINE DEPENDENCE OF IMPORTANT FISHERIES WITHIN
THE MISSISSIPPI COASTAL ZONE**

COMMERCIAL			SPORT		
Permanent Resident	Transitional Resident	Nursery Zone	Permanent Resident	Transitional Resident	Nursery Zone
Oysters	Shrimp	Shrimp	Crabs		Bass
Crabs	Porgy		Croaker		
Croaker	Menhaden	Menhaden	Drum		
Flatfish			Spotted Sea Trout		
			Spot		
			Bluefish		



- | | | | | | |
|---|----------------|---|-----------------|---|-------------------|
| A | SHRIMP EGGS | D | MYSIS | G | ADOLESCENT SHRIMP |
| B | NAUPLIUS LARVA | E | POSTMYSIS | H | ADULT SHRIMP |
| C | PROTOZOA | F | JUVENILE SHRIMP | | |

73033A014

Source: W.C. Guest, The Texas Shrimp Fishery, 1958.

Figure C-3. Typical Life History of the Gulf of Mexico Shrimp

Sources

Chapman, G., 1968, "Channelization and Spoiling in the Gulf Coast and South Atlantic Estuaries," Proc. Marsh and Estuary Mgt. Symp., Thomas J. Moran's Sons, Inc., Baton Rouge, Louisiana, 250 p.

Gunter, G., 1967, "Some Relationships of Estuaries to the Fisheries of the Gulf of Mexico." In Estuaries. Amer. Assoc. Adv. Sci. 88:621-638.

5 MAJOR INFLUENCES IN MISSISSIPPI GULF COAST AFFAIRS

The Gulf Coast of Mississippi has a population of about 239,944 (1970 U.S. Census) in the three coastal counties, Hancock, Harrison, and Jackson. The growth has been rapid in the decade of the sixties -- especially in Jackson, and it has been forecast that rapid growth will continue. Some foresee the day when 2,700,000 people will live south of Highway I-10 in Mississippi.

This indicates a vigorous economic and political environment which can be stimulated only by a number of strong influences working to bring change to the region. The three strongest sources of income of the region are government, tourists, and industry. However, it is desirable to examine these in more detail, especially land and industrial development, coastal and ocean shipping, minerals and petroleum, fisheries, power and water resources, etc.

5.1 Government

As in most similar regions, on the Mississippi Gulf Coast, there are a few large Federal installations that dominate. They are impressive for their numbers of people, the size of the payrolls, and the area of the reservations. For example, Keesler Air Force Base accounts for 20,000 people and an annual payroll of \$100 million. Others, not so obvious, exert much weight in regional affairs through the money they control and contracts they administer. At a lower level a great many small offices of Federal agencies provide services and administer the law on a day-to-day basis, still contributing to shaping the essential character of the area. And finally, a few small facilities have great influence by intellectual force; examples include research laboratories and extension services.

State government institutions and agencies have a similarly large, but less publicized, impact. Their forces are again money and knowledge, and, to a larger degree, civil and criminal law. Education, highways, and courts play a prominent role in every state. In county and municipal governments, the forces shaping the character of the region are similar; although smaller, they have the great advantage of daily close proximity. The citizens of Mississippi long have been very strong proponents for retaining power of government at the local level.

The Federal government, especially the military, has a large impact on the economy and planning of the coast in Mississippi. The largest installation is Keesler Air Force Base (Figure C-4) at Biloxi where personnel are trained in electronics. At Gulfport is the U.S. Naval Construction Battalion Base to which all the USNCB organizations at Quonset, R.I. are being moved. A large Veterans Administration Center with a 1100-bed hospital is located in Biloxi. The Gulf Islands National Seashore, just recently organized with headquarters in Ocean Springs, promises a large boost for the tourist and recreation industry. In Hancock County is the NASA Mississippi Test Facility, a center for rocket motor static testing and environmental studies. The U.S. Navy has an establishment in Pascagoula for the coordination of shipyards building many surface ships and submarines under Navy contract.

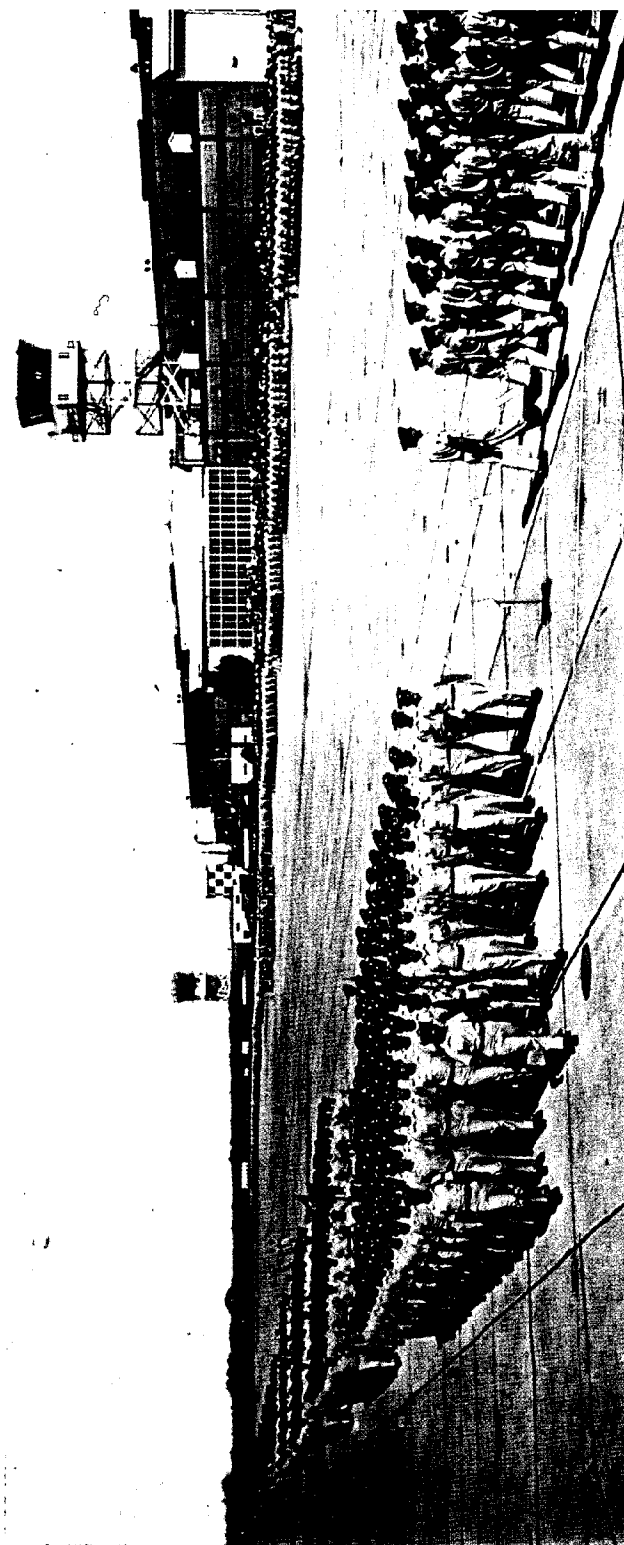


Figure C-4 Kessler Air Force Base

A dozen or more smaller Federal installations in the area have an influence on the area's growth and characteristics despite their impact being an order of less magnitude. Examples include the U.S. Coast Guard stations at Gulfport, at Pascagoula, and at NASA Mississippi Test Facility. National Marine Fisheries Services facilities at Pascagoula, Ocean Springs, and the Mississippi Test Facility are significant for their support of Mississippi's fishing industry. The Desoto National Forest, the National Fish Hatchery at Lyman, and several Federal wildlife refuges are in the area. The U.S. Army Corps of Engineers, operating out of Mobile, Alabama, has a strong hand in regional development and planning. In addition, there are scores of smaller Federal offices and services throughout the coastal regions, as one might expect. Examples of these contributors to the local economies are the U.S. Postal Service, Federal Aviation Administration, Soil Conservation Service, Internal Revenue Service, Social Security Administration, Federal Job Information, Federal Bureau of Information, Small Business Administration, U.S. Civil Service, Indian Bureau, U.S. Customs Service, and others.

Beside these are the agencies of the State of Mississippi. Outstanding influence is exerted by the payrolls and expertise of the Jackson County Campus of the Mississippi Gulf Coast Junior College at Gautier, its Jefferson Davis Campus at Gulfport, the Gulf Park Campus of Mississippi Southern University, the Environmental Education Center in Biloxi, and Mississippi State University branch at the NASA Mississippi Test Facility. The Universities Marine Center and the Gulf Coast Research Laboratory have a very pertinent and strong impact on matters of the coastal environment. The Gulf Coast Regional Planning Commission is a key factor in coastal zone planning and development. Also represented in strength on the Coast are the Mississippi Highway Department, Department of Education, Air and Army National Guards, Employment Security and Employment Service offices, Forestry Commission, Regional Housing Authorities, Mississippi Agriculture Department, Tax Commission, etc.

The county and local government agencies are very numerous. By intent, they have the strongest influence on the development and planning of the area, as they are the closest and most responsive institutions to the needs and opinions of the local people and businesses.

5.2 Recreation and Tourists

Mississippi's Gulf Coast is often called the "Riviera of America", rightly so because of the fine climate, beautiful setting, and abundance of recreational resources. The focus is the broad 26-mile beach extending from Biloxi to Pass Christian. Figure C-5 shows the Biloxi Yacht Club. This is augmented by a whole spectrum of recreation facilities from dining and nightspots through sport fishing boats, park campgrounds, and golf courses. Although Mississippi's exact share has not been defined, it is an important part of the nation's \$14 billion per year marine recreation industry (1968 estimate).

As a tourist center, the coast is well developed, especially in Harrison County. However, it is a long way from fully utilized, there being ample space to introduce on the beach front many more establishments to meet tourist needs. There are commercial and industrial establishments that could just as well be moved inland or located on the back bays and waterways. Moreover, the present tourists attracted to this "Riviera of America" are said to come from nearby -- within a radius of 250 miles.

There are a few regional trade associations interested in promoting tourism - the Mississippi Coast Innkeepers Association, for example. But most promotional organizations are local in nature,

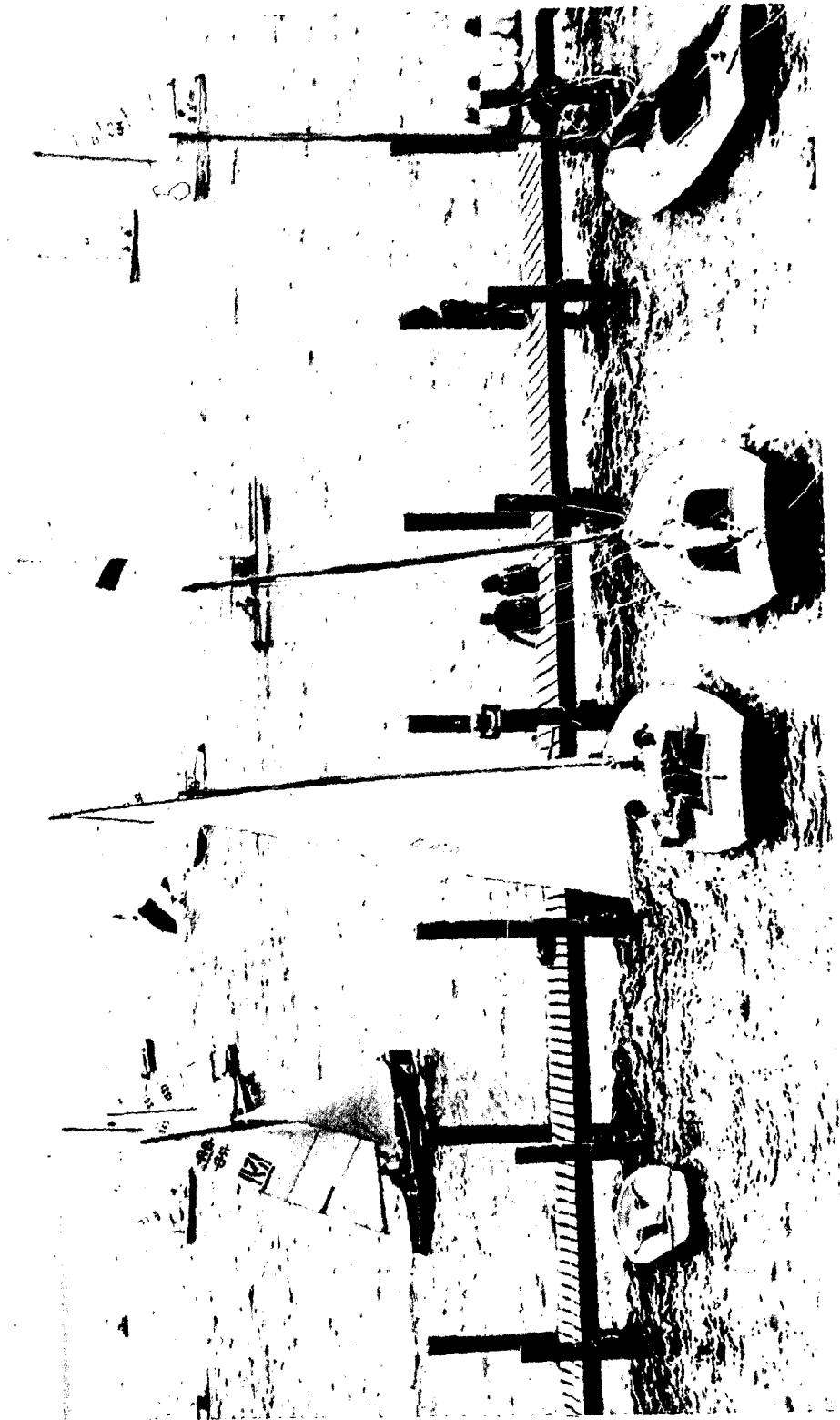


Figure C-5 The Biloxi Yacht Club

such as the chambers of commerce, which are responsible for promoting many other activities in each community as well. There is a strong movement of individual and small-group enterprises seeking to promote tourism and exploit the great opportunity before them, but they lack coordination. A strong, single regional tourist agency is urgently needed to promote and advertise the resort area of Mississippi's coast on a national -- perhaps on an international scale.

The recreational resources of the "Riviera of America" include not only the artificially-dredged beach of the "Gold Coast" extending from Biloxi to Pass Christian, but also other beautiful beaches in the vicinity of Bay St. Louis, Ocean Springs, Deer Island, Waveland, the offshore islands, etc. Boating is available at several yacht clubs, scores of marinas, many small craft harbors, and numerous launching ramps from the Alabama line to the Pearl River. Excursion boats sail from Biloxi and Gautier. Charter boats are available for fishing along the coast, especially at Biloxi, Ocean Springs, Long Beach, and Bay St. Louis. More than 50 fishing camps are scattered along the entire coast and the inland waters of the coast. Fishing piers are available at Biloxi, Ocean Springs, Long Beach, Mississippi City, Gulfport, and Pass Christian.

Along Mississippi's coast there are more than ten golf courses. There are many tennis courts, those catering to tourists being mostly in Ocean Springs, Biloxi, and Pascagoula. Horseback riding is available, most notably in Ocean Springs, and horse racing is available at the fairgrounds a few miles away in New Orleans.

Camping and picnicing is available at a number of commercial parks and forests and at several public facilities including the Magnolia Area of Gulf Islands National Seashore, the DeSoto National Forest, and Pass Christian's Memorial Park. An extensive development program is being initiated at the Gulf Islands National Seashore, and the Mississippi Park System is just beginning the development of a new \$2 million park on a 386-acre site at Waveland. Hunting is available at many private locations and at such public game management areas as Red Creek and Leaf River. For hikers, sightseers, and bird-watchers there are wildlife sanctuaries at Petit Bois Island and Horn Island.

Nearly a hundred points of interest are available for the sightseers. There are historic sites such as Jefferson Davis' home at Beauvoir, the old lighthouse and the Magnolia Hotel in Biloxi, St. Augustine's Seminary in Pass Christian, Fort Massachusetts on Ship Island, the Longfellow House and Old Spanish Fort in Pascagoula, and Fort Maurepas site and the Plantation Home at Gautier. There are craft shops such as Shearwater Pottery and Singing River Pottery. The Veterans Administration Center, Keesler Air Force Base, the Navy "Sea Bee" base at Gulfport, and NASA Mississippi Test Facility are Federal installations of interest to tourists.

All along the coast are hotels, motels, and tourist homes of every grade and description. There are also hundreds of restaurants of every kind, some nationally known for excellence. There are many nightspots, but entertainment is available at only a few in simple form. While there are a number of movie houses, there are few theaters such as Pascagoula's amateur Cabaret Dinner Theater. Amusement attractions include Six Gun Junction, Deer Ranch, and Marine Life Aquadome. However, in general, the "Riviera of America" needs a significant increase in entertainment and amusement opportunities for tourists of all age levels.

5.3 Industry

While it has been said that industry provides about 30 percent of the income on the Mississippi coast, the word "industry" must be interpreted broadly. Here it is understood to include construction and land development, transportation, minerals, manufacturing, utilities, and the like.

The primary industrial center on the coast of Mississippi is the Pascagoula - Moss Point area encompassing Litton's shipyards, the Standard Oil (Ky.) refinery, an International Paper mill, and others. Figure C-6 shows the Standard Oil Company's refinery in Pascagoula. This locale has experienced exuberant rapid industrialization, especially with respect to the shipyards. The leaders of the community have consolidated to drive forward to develop Jackson County's heavy industry. Jackson County Port Authority and Jackson County Planning Commission have aggressively advanced to stages of planning, development, and promotion well in advance of the other two coastal counties. They have firm goals in mind, and they have done excellent preparatory work. They will be adamant in opposing any parties seeking to deter or divert them. Especially, they will tolerate no outside interference in the management of their own affairs.

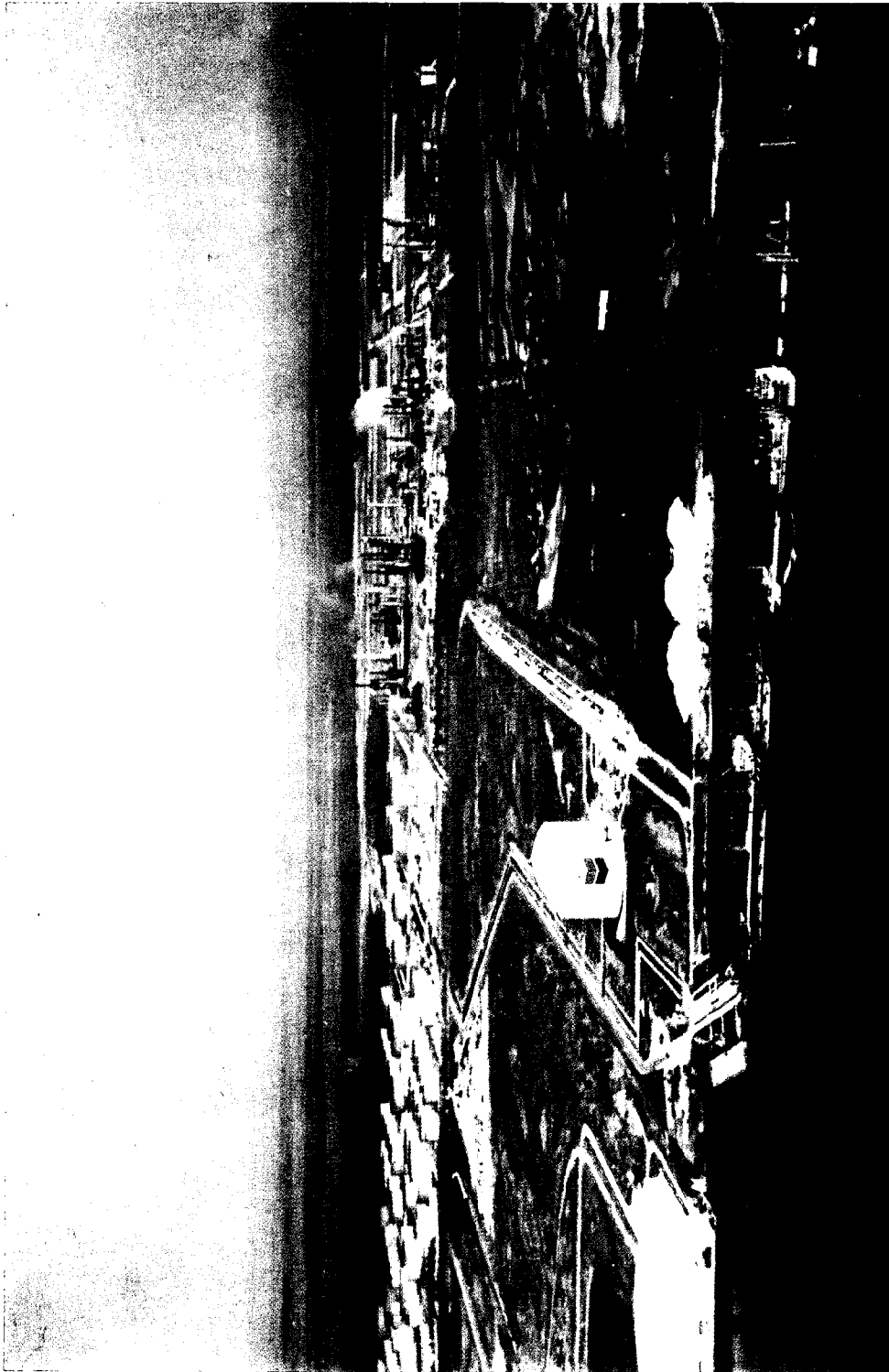
In Harrison County, there is a strong effort to develop further the industrial areas of Back Bay. The work is being promoted vigorously, but at the same time, fuller recognition is being given to the fisheries and the tourist-recreation business, resulting in a kind of balance among industry, shipping, fisheries, and tourism. Progress in coordinated development and land-use planning is of limited scope.

Hancock County, being adjacent to Louisiana and not very far from New Orleans, is strongly oriented to the needs of that city. It favors a mixed program of the traditional fisheries, the current tourists, some industry, and deluxe residential satellites to New Orleans. Hancock holds a receptive attitude toward space age technology and medium industry because of the presence of the NASA Mississippi Test Facility.

5.3.1 Development

Jackson County, having at Pascagoula a number of shipyards and heavy industrial plants, supports them with an extensive ocean port facility. This includes public docks, warehouses, and a grain elevator. In the process of construction are a 100 MGD industrial water supply system, and a secondary industrial waste water treatment plant (Figure C-7). Construction is expected to begin soon on a bulk terminal for coal destined primarily for electric generating plants. Provisions may be made for later installations to handle pulverized and slurried ores. A new oil refinery is to be built in the near future, and a liquid natural gas (LNG) terminal is contemplated. In the very near future, the 38-foot ship channel to Bayou Cassotte will be dredged to 50 feet, and a turning basin will be created.

At Biloxi in Harrison County, there are a few medium and light industries with a great number of food processing plants - mostly seafood and pet food. These are located back from the shore and on Back Bay. With a few exceptions, the shore is being left for light commercial establishments, tourist enterprises, and some residences. The main interests of Biloxi after Keesler AFB and the tourists are the fisheries -- shrimp, menhaden, and trash fish. There is no interest in ocean shipping, only in coastwise barges and recreational boating.



*Figure C-6 Standard Oil Company's
Pascagoula Refinery*



Figure C-7 Pascagoula Secondary Waste Water Treatment Plant

In Harrison County at Gulfport, the emphasis is on tourism, the naval base, and transportation with some medium and light industry - again largely seafood. Gulfport is a seaport, a rail center, a highway junction, and the air terminal for the Mississippi coast. The Port of Gulfport is the nation's foremost banana port. No coastwise traffic is handled here. The 28-foot channel soon is to be dredged to 36 feet. A \$4.8 million improvement project by 1974 will provide an additional berth and container storage area. More storage area, new equipment, including a crane for container handling, a roll-on/roll-off facility, and a refrigerated storage shed will be provided by 1978.

Other developments in Harrison County include the Biloxi Industrial Seaway on the north side of Biloxi, to be extended from Back Bay into the north end of the county. Plans also call for it to be connected ultimately with Bay St. Louis. Industrial parks are established, or are being developed, at Bayview, at Bernard Bayou, at Long Beach, at Pass Christian, at East Harrison Industrial Park, and at Biloxi Industrial Park.

Further west in Hancock County, the NASA Mississippi Test Facility dominates the economy and overshadows other industries, but already has climaxed in its development. The towns about Bay St. Louis and on other waterways are involved in some small industries and fisheries, but no significant shipping as the channels are only six or seven feet deep. The exception is the new Port Bienville Waterside Industrial Park served by a 12-foot channel up the Pearl River, the Port Bienville Shortline Railroad, and a connection to Highway U.S. 90. There is also the new Stennis International Airport with the associated air industrial park just off the new Highway I-10 north of Bay St. Louis. On the shore, action is being taken to deepen the channel to Bayou Caddy where commercial and sport docks, ramps, and fueling facilities are being developed.

The construction industry is booming along Mississippi's coast. The havoc of Hurricane "Camille" in 1969 resulted in widespread reconstruction of residential, commercial, industrial, and public buildings, especially in the stretch from Gulfport to Pass Christian which was hit by the center of the storm. There are several urban renewal and renovation projects such as Biloxi's Central Business District Revitalization Program.

A coliseum having a seating capacity of 10,000 and a million-dollar fishermen's wharf are being planned in Biloxi to serve conventions and tourist trade. Construction in Jackson County is vigorous as the result of the rapid industrial growth. Residential and commercial developments are going in all along the east end of the coast in response. On the west end of Mississippi's coastal belt, there is much residential and commercial construction based on the attractiveness of Hancock County as a bedroom community and weekend resort for people working in New Orleans. Most notable here is "Diamond Head", a private planned community of deluxe residences and associated recreational facilities including a marina, a country club, golf courses, and swimming and tennis clubs. Also, a large and elaborate resort development is going in on Cat Island off the coast at Long Beach. Other notable developments along the Mississippi coast include Discovery Bay, Timber Ridge and Jourdan River Shores.

5.3.2 Transportation

Ocean shipping on the Mississippi Gulf Coast concentrates at the ports of Gulfport and Pascagoula, already described above. Coastwise traffic follows the Gulf Intracoastal Waterway which connects all the Mississippi coastal parts with a 12-foot channel. Inland waterways such as the Pearl, Pascagoula, and other rivers bring inland barges from upstate, etc.

The volume handled through Gulfport was over a million tons in 1972 and is growing ten percent a year. Its facilities, reconstructed since the hurricane in 1969, are primarily for handling conventional break-bulk cargo, although the facilities can handle containerized cargo from ships having their own cranes. LASH barge traffic is handled after being towed from New Orleans where the barges are disembarked from the carrier-ships. Future projects will provide dockside container cranes and storage areas, plus facilities for handling roll-on/roll-off cargo. Imports through Gulfport are bananas, chemicals, jute, rock, fishmeal, and steel. Exports include bauxite, forest and paper products, grain, milk, and machinery. The Harrison Industrial Waterway provides for water transportation to local industrial sites from the Port of Gulfport and the Intracoastal Waterway.

Pascagoula is a 12-million ton-a-year port and is growing rapidly. Its facilities are divided into the East Port which handles mostly petroleum and chemical cargoes, and the West Port which handles grain and general cargoes. Facilities under construction soon will provide for bulk export of coal and import of ores and liquid natural gas. Consideration is being given to constructing an offshore oil terminal or "Superport" to handle tankers with drafts of 90 to 100 feet. The Port of Pascagoula is primarily an ocean port, but there also is a large volume of barge traffic, especially in grain. It is anticipated that coal barge traffic will grow rapidly with the completion of the bulk facility, especially in view of the national energy crisis.

Both Gulfport and Pascagoula are at a competitive disadvantage with respect to traffic through New Orleans and Mobile caused by differences in freight rates. Thus the two Mississippi ports must offer cleaner, faster, or otherwise better service.

Landward, the transportation network from Mississippi's coastal area to the Midwest and Mississippi Valley is outstanding. Gulfport is at the junction of the Illinois Central Railroad and the Louisville and Nashville Railroad, the latter serving Pascagoula also. Highways U.S. - 90 and U.S. - 49 intersect at Gulfport, and Highway I-10 will pass just to the north. Highways U.S. - 90 and Mississippi Routes 15 and 67 intersect at Biloxi. Pascagoula is served by Highways U.S. - 90 and soon will be served by I-10, as is the rest of the Mississippi coast.

In addition, Mississippi Route 63 and 613 serve Pascagoula; Route 57 serves Gautier; Route 603 serves Waveland, and Route 604 serves Pearlinton. Stennis International Airport serves Hancock County, and Jackson County Airport serves Pascagoula. The Gulfport Municipal Airport with its many more commercial flights is the true air traffic center of Harrison County and the Mississippi coast.



Figure C-8 The DELTA BRASIL Unloads At Gulfport

5.3.3 Minerals

The mineral resources of the Mississippi coastal zone are petroleum, oil, and gas, sand, gravel, shells, and refractory clays. Sand and gravel deposits are found in the streams of the Mississippi coast, but the superior supply of sand comes from offshore bars which have supplied the pumped sand beach from Biloxi to Pass Christian. Shells are found in great quantity in relict reefs in Mississippi Sound off Pass Christian. The clays are used for brick and pottery manufacturing, mostly on the eastern end of the coast. A preliminary exploration indicates the presence of geothermal steam at nearly ideal temperatures and pressures beneath the Mississippi coast.

There are active oil and gas fields ashore in Mississippi, such as the gas field at Waveland in Hancock County. Offshore, there has been exploration by the oil companies but very little information has been released. It has been stated by good authority that considerable oil and gas reserves have been discovered off Mississippi and that these should be the cause of considerable activity in two or three years, especially in view of the present national energy crisis. The principal delay in development has been caused by the opposition of conservationists, it is said. Other authorities say that the oil deposits off Mississippi are too deep for economic development, and it may be several years before the shallower deposits of gas are produced. The Mississippi State Oil and Gas Board is in the process of drafting regulations for offshore gas and oil operations and has divided the offshore areas into blocks for administration of leasing.

5.3.4 Utilities

Water is abundant from the region's wells, lakes, and rivers. Jackson County, in particular, has built a complete industrial water supply system with treatment, storage, and distribution. Sewage systems are established in the cities and most towns along the coast; Jackson County is now completing an industrial secondary wastewater treatment plant. However, the waters of the coastal area are severely polluted in some parts of the estuaries so that the taking of shellfish is forbidden. Electric power is amply supplied by the Mississippi Power Company and a several power cooperatives. Electricity generated in the area comes from gas-fired plants which are switching to oil and to coal as the nation's energy crisis intensifies. Mississippi Power spent \$100 million in the last three years to augment by 60 percent the capacity of its present system, which includes plants at Gulfport and Pascagoula.

5.3.5 Fisheries

Commercial fisheries bring more than \$13 million per year income to the Mississippi Gulf Coast. The landings include shrimp, oysters, crabs, menhaden, and trash fish. The menhaden and trash fish are processed for fish meal, fertilizer, and pet foods. The shrimp and oysters are the high income-producing seafoods. Pascagoula, Biloxi, and Gulfport are the leading fisheries processing centers, there being more than 530 persons employed in five plants at Pascagoula and more than 640 employed in 15 plants at Biloxi.

The shrimp fisheries are the most profitable of the nation. However, Mississippi's shrimpers are having increasing difficulty in filling the holds of their boats and are having to

sail beyond Mississippi Sound as far as Venezuela to get their catch. The declining yield of shrimp from Mississippi waters is attributed mostly to pollution, filling wetlands, and disturbance of nursery and spawning grounds offshore by careless trawling.

The oyster fisherman are also taking fewer than before, although in 1964-1965 oyster production of the Gulf states exceeded production of the Chesapeake Bay. Mississippi's increasing production to that date was attributed to the state program of fisheries management. Since then, the decline has been blamed on pollution, predators, and changes in runoff.

Pollution of the waters of Back Bay of Biloxi has resulted in prohibition of shellfish harvesting, for example. Drills, which are predators, are destroying oysters in the higher salinity waters off the mouth of the Pearl River because dams upstream have reduced the flushing by fresh waters that otherwise kill off the drills. In addition, there are difficulties and high costs associated with collecting shucked oyster shells and returning them to the oyster beds to serve as attaching surfaces (cultch) for oyster larvae (spat). Finally, there is considerable dissatisfaction with the mining of shells from ancient oyster banks in the Mississippi Sound, as it is felt that oyster production could be restored by astute management of these "reefs".

6 COASTAL ZONE PROBLEMS

The coastal zone of Mississippi has had problems since its early days. Discovered by the Portuguese just before 1600, first explored by LaSalle in 1682, and explored again in 1899 by Frenchmen under D'Iberville, settlements were established at Biloxi, Ocean Springs, and Bay St. Louis soon after. The first problems of the settlers were related to finding healthful building sites, water supply, marine transportation, and military defense. Today's problems are not unlike the old ones.

6.1 History

In 1810, the Mississippi Gulf Coastal area was ceded to the United States as a part of West Florida. Hancock and Jackson Counties were formed in 1812; later in 1841, Harrison County was formed from a part of Hancock.

By 1814, Bay St. Louis had become a resort preferred by Natchez planters and their families; later they were joined by wealthy New Orleans tourists. The tourist trade blossomed in the late 1800's and was one of the economic mainstays of Hancock County when lumbering and seafood industries deteriorated in the 1920's because of over-exploitation. The Mississippi BAWI Program (Balancing Agriculture With Industry) brought a regeneration of forestry and oystering and introduced new industry. The establishment of the NASA Mississippi Test Site brought prosperity of advanced technology in the decade of the 1960's. Hancock County's role as a resort center began to evolve into that of deluxe residential development for New Orleans people.

In Harrison County, then a part of Hancock, Biloxi was firmly established as a seaport by 1750 with Ship Island as a transfer point to unload deep-draft ocean vessels having cargoes

for New Orleans, the Gulf Coast, and the Mississippi Valley. As steamships became predominant and channels were dredged, the ocean traffic was drawn away to New Orleans. In 1898, a railroad from Jackson, Mississippi, was completed and the southern terminus city, Gulfport, was incorporated. By 1902, the port at Gulfport was completed and functioning; the Ship Island operation was essentially dead. Lumbering, seafood, and tourism now dominated the economy which went into a severe depression in the 1920's with the depletion of forest resources. Establishment of Keesler Air Force Base and the Naval Construction Battalion Center in World War II gave the economy a strong boost which was sustained. Following the war, lumbering revived, and the tourism and seafood business also grew. Recently, the port has been developed further and in many places rebuilt following the hurricane of 1969, such that it is the nation's largest banana port.

Jackson County's first settlement by D'Iberville in 1699 was at the present town of Ocean Springs. Pascagoula dates back to the DeLaPointe home built in 1718, but it was not then a seaport because of the shallowness of its waterways. The cargoes of lumber fishery products, naval products, and charcoal were shipped mostly through Ocean Springs. Tourism developed in this town, and by the middle of the 19th century, there was a large flow of guests coming to the plush hotels and health resorts via scheduled coastal steamships. The lumber industry was stimulated by completion of the railroad to Jackson County in 1879, only to flounder in the 1920's through resource depletion. Shipyards built at Pascagoula in World War II and reforestation made the foundation for industry in shipbuilding and paper manufacture. Industrial and port development programs begun in the 1950's have resulted in Pascagoula become the nation's 17th largest port, the home of the world's most technically advanced shipyards, and Mississippi's leading oil refinery and chemical center.

6.2 Opportunities and Trends

On the eastern end of the Gulf Coast of Mississippi in Jackson County, two decades of intensive effort have produced an impressive industrial complex and an excellent port. Facilities are being constructed to support even more growth of industry in the Pascagoula area. The leadership, the planning, facilities, and capabilities are there to ensure accomplishment. The large number of industrial employees (e.g., 25,000 at Ingalls Shipyard) provides a large labor pool and also a large political constituency. The trend of the future in Jackson County clearly is toward industrialization.

In Harrison County, there is a strong interest in industrial development; much has been done in Back Bay, on the Industrial Waterway, on the beach front, and at the Port of Gulfport. However, the interest in development is more diversified, taking into account the needs of fisheries and tourists as well. A steady growth of the Port of Gulfport is planned and will occur. There will be more expansion of the fish plants, boatyards, and other industry in Back Bay. With the completion of the Industrial Waterway to Bay St. Louis and the upper end of the county, more coastal shipping will be enticed.

Industrial development in Hancock County is not as vigorous and has a much smaller base from which to build. While there will be some industrial growth, it will be more balanced with fisheries, tourist trade, and residential development.

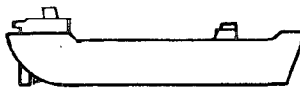
Visions of some of the local business leaders are that the Mississippi coast with its bays, bayous, and rivers will become the "Ruhr of America", serving middle-America and trading with the world. This is a realizable dream, but it will occur only in the areas around Back Bay, Biloxi Bay, and Pascagoula. It is expected that the heavy industry will be concentrated around Pascagoula/Moss Point, and will be heavily oriented toward petroleum oil and gas. This ambition requires careful, intelligent planning and management.

Interest in developing oil and gas deposits offshore of Mississippi is reaching a new high. With the current national energy crisis and the shortage of gas, it seems certain that many gas wells will be emplaced within two or three years. The economics of drilling deeper wells to recover crude petroleum may postpone drilling them for several years, but it also seems inevitable. No sulphur deposits in Mississippi's offshore areas are known, although there are some off Texas.

Offshore deepwater ports are a subject of intense interest. Studies were completed recently for the U.S. Army Corps of Engineers and the Maritime Administration. There is a study in progress on a Mississippi Superport by the Governor's Science and Technology Advisory Council. The greatest need for an offshore port for Mississippi is for transfer of imported oil from the new generation of super-tankers having drafts of 90 to 100 feet. (Mississippi's offshore oil wells will be served by submarine pipelines). Buoy-type facilities will serve adequately for Pascagoula's refineries and will be clearly less expensive than large floating platforms or artificial islands. With the advancement of the technology of pumping ore slurries, buoy-type facilities can serve also for transfer of ore, coal, and other similar bulk cargoes. This simple terminal is likely to be installed off the Mississippi coast in five to ten years. This and the dredging of Pascagoula channel to 50 feet will postpone the justification for larger, more expensive types of offshore ports. (See Figure C-9).

The construction of many housing developments along the coast is the combined result of Hurricane "Camille" reconstruction and economic growth of the region. However, the planned community, Diamondhead, is clear evidence that there is a strong trend to establish "bedroom communities" for New Orleans in Hancock County. Such communities will greatly influence a rapid growth in recreation, service, and tourist business. Industrial growth is likely to be restricted to light, clean industry. Pollution abatement will be pursued so that recreation and fisheries will benefit.

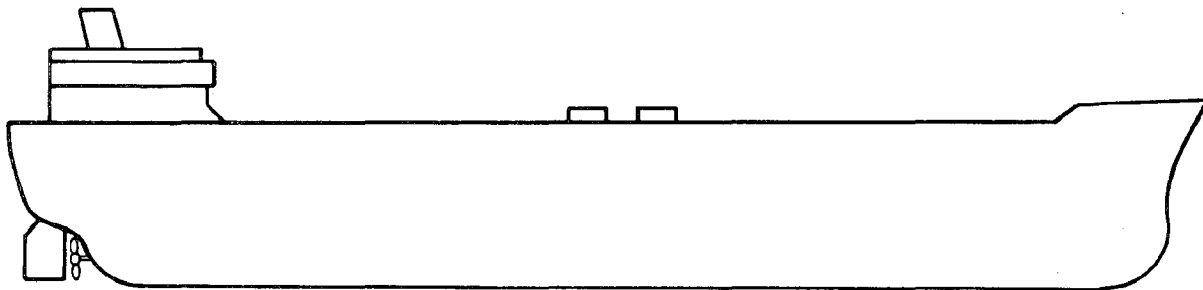
The development of "bedroom communities" in Hancock County will encourage the development of tourism not only in that county, but also in Harrison and, to a degree, in the Ocean Springs area of Jackson County. Harrison County will continue to pursue the "Riviera of America" image, building upon its existing reputation and resources while drawing upon population centers at yet greater distances. The proposed coliseum will be followed by still more tourist facilities, boosting the motel/hotel, restaurant, and entertainment businesses. The tourist business will be extended to become more nearly a year 'round activity, certainly less cyclical than it is now.



TYPICAL TANKER AFTER W.W.II
 DRAFT 28'
 DWT 16,000, LENGTH 520, BREADTH 68'
 FORMER DEPTH LIMITATION
 30' MLW



TYPICAL TANKER USING PASCAGOULA
 DRAFT 36'
 DWT 35,000, LENGTH 670' BREADTH 85'
 EXISTING DEPTH LIMITATION
 38' MLW



NEEDED TANKERS & OIL/BULK/ORE SHIPS
 DRAFT 45'
 DWT 80,000, LENGTH 775' BREADTH 110'
 RECOMMENDED 50' DEPTH

73033008

*Figure C-9 Post-World War II Growth of Tanker Size
 to Meet Increased Demand*

6.3 Conflicting Uses

Mississippi, like other states, does and always will experience difficult user conflicts in the coastal zone as various groups and individuals pursue their own legitimate interests. The fisherman (Figure C-9), the shipper, the industrialist, the swimmer, and many others find that their activities infringe upon each other's rights and privileges. Peaceful and just solutions must be found, or at least means for the conflicts to be resolved must be provided.

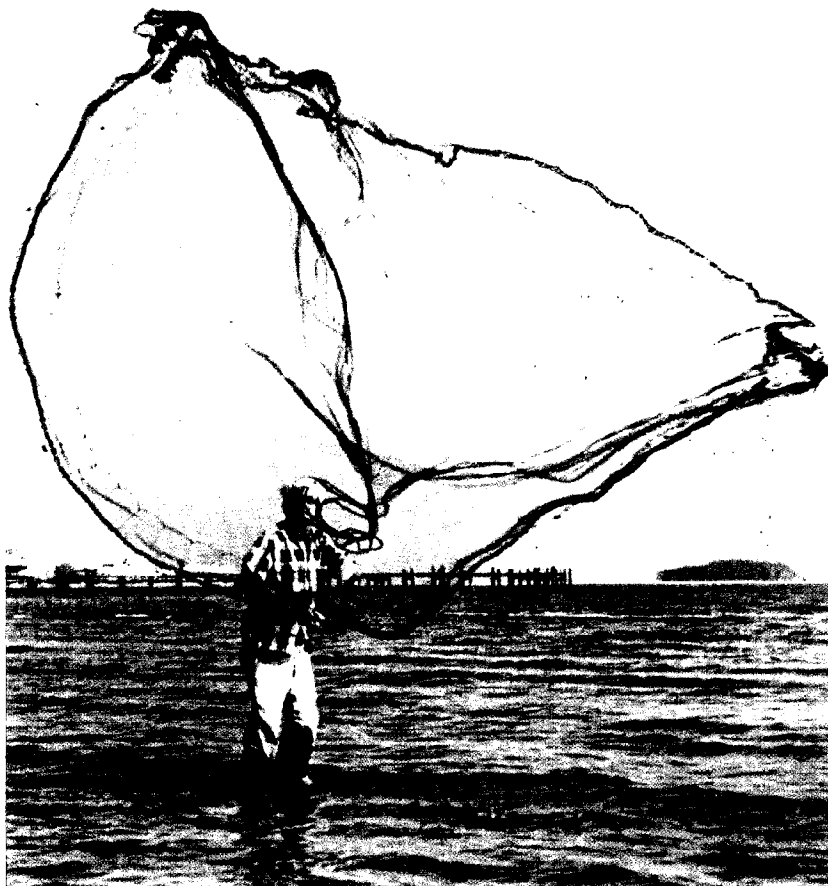
Several conflicts are being widely discussed at this time. One is the problem of Mississippi's 86,000 acres of wetlands. People seek to fill these marshes at the rate of 1,200 acres per year for building residential communities, constructing industrial plants, establishing marinas, building highways, dumping solid waste, and so on. The wetlands are highly productive biological areas which are breeding grounds, nursery locations, feeding places, and resting areas for local and migratory wildlife of all kinds. They are especially important to both sports and commercial fishermen who work the estuarine areas and those who fish offshore for species spawned, reared, and fed by the wetlands. Some 29 sports species and 80 percent of the commercial species reproduce and/or mature in wetlands and estuaries. They are fed during the growing phases and during the adult phase by organic products of wetlands carried on the tide into the bays and eventually out on the continental shelf.

Closely related is the problem of water pollution. It has become general knowledge that inadequate wastewater treatment and control by homeowners, municipalities, industry, farmers, and others result in waterways being contaminated. The waters may be polluted by pathogens, toxic chemicals, or excessive nutrients so that sport and commercial fisheries' species, other wildlife, and human beings are harmed. The closing of shellfishing areas in Back Bay of Biloxi is an example in which harm is done to an important economic factor of the community. The same pollution degrades the swimming beaches, threatening their closure and thereby conflicting with the tourist-recreation businesses.

The impending expansion of the petroleum industry into the offshore waters of Mississippi focuses attention on the problem of oil spills. When wells are drilled or operated, there are risks of accidental oil spills. Indeed, oil may be spilled during transportation, transfer, storage, or processing. From this kind of incident, wildlife and fisheries may be injured, the tourist and recreation industries may be degraded, and the aesthetic senses of residents and visitors alike may be offended.

Land use on the shoreline is a widespread problem which is difficult but not so widely recognized. With the passage of time, more and more of the shoreline, for example, will be occupied by enterprises engaged in intensive use of that land. The shoreline will become less and less available for the residence and recreation of the general public, being reserved for commercial recreation, shipping, fish plants, etc. Indeed, Gulfport and Biloxi have excellent examples of places where prime beach front suitable for recreation and tourists is occupied by the facilities of shipping and fish packing. In addition, the facilities also detract from the aesthetics of the beach front, generate traffic burdens, and create nuisances. Of a similar nature is the land use competition between industrial, commercial, and residential developers in other areas.

Among the sports fisherman and the commercial fisherman, there is competition for catch, and there is interference with one another in the operations of boats. Projects for



*Figure C-10 Biloxi Mullet Fisherman With His Net,
Often Called A "Biloxi Mullet Gun."*

construction of artificial fishing reefs offshore promise improved sports fishing yet threaten to create obstructions which will tear nets and damage other commercial fishing gear. Moreover, the creation of these reefs, if not carefully planned, may attract predators that would feed upon commercial species. A conflict of use between Mississippi fishermen and those from the other Gulf states exists because there are no laws to regulate the operations of out-of-state boats and there is no adequate policing agency.

Marine mineral production can conflict with commercial fishing as in the dredging of oyster shells from the relict reefs in Mississippi Sound. Current dredging operations recover old oyster shells which are sold for road construction and the like. Local oyster fishermen strongly object, as they feel that the reefs should be preserved and that oystering should be restored. Lacking that, they feel that the shells should be dispersed in suitable waters where they will serve as substrate for the growth of new oysters. Other dredging operations for sand and gravel may interfere with the fisheries by siltation which smothers shellfish. Dredging deeper channels for shipping not only creates problems with fishermen by siltation, but by changing the patterns of currents so fish habitats are disrupted or predators such as oyster drills are spread with the intrusion of higher salinity waters.

Mississippi has a great potential for future growth by using its resources, especially in the coastal zone. New understanding, new leaders and advocates, and new publicity has created a strong following of preservationists in Mississippi as has happened in other states. Although there are few formal organizations actually established in Mississippi, the preservationists receive support from national organizations and those in other states. Mississippi also has a great number of leaders who seek the economic development of the state, especially on the coast. These people have great vision, great determination, and great influence. The competition between the preservationists and the developers requires that there be an effective procedure administered by some institution to guide these two groups to pragmatic compromises.

6.4 Natural Disasters

The people of Mississippi, especially those who live on the Gulf Coast, are quite aware of their vulnerability to hurricanes since "Camille" in 1969. Despite a brochure on the "Friendship Oak" at the Gulf Park Campus of the University of Southern Mississippi that describes the Mississippi's Gulf Coast as hurricane-free, the Riviera of America does have a problem. Indeed, history records that this region was struck by severe hurricanes many times, for example, in 1723, 1732, 1733, 1746, ... 1947, 1965, and 1969.

"Camille" was the worst hurricane to strike Mississippi or the mainland of the United States in recorded history. The center of the storm, with its winds estimated at 225 5 miles per hour, came ashore in Harrison County. Waves and tides up to 226 feet high demolished shorefront homes and establishments. It flooded many square miles of the low-lying flat coastal lands, destroying more millions of dollars of property.

This flooding, however, was not unique to "Camille", as it occurs often whenever there is an extremely high tide, a storm surge, or even extremely heavy rainfall from less impressive storms in the Gulf region. It is for this reason, not the reason of exceptional ("500-year") storms like "Camille", that planning commissions along the coast are designating "flood zones" in which only the minimum necessary construction will be permitted in the future.

In these flood plains, the hazards to life and property create problems for the people of the Mississippi coast and their governments. There must be continual planning and readiness to help the citizens through giving storm warnings, direction, and assistance with the evacuations, protection of life and property from the effects of storms, and reconstruction of disaster areas after the storm is over.

At the urging of Mississippi officials and congressmen, the Congress of the United States has authorized a study of hurricane protection and beach erosion control along Mississippi's Gulf Coast. To reduce property damage and loss of life from storms and hurricanes, consideration is being given to construction of coastal hurricane barriers, additional artificial beaches, higher seawalls, and extensive levee systems.

The normal processes of geology cause some erosion of the land mass, transporting silt and sand to new places - especially in the coastal zones. This natural operation is accelerated by man's actions to shape the earth's crust while building new housing developments, creating new commercial centers, and constructing extensive highway nets. Waters are muddied by this siltation, reducing light penetration to the oxygen-generating marine vegetation. The siltation fills harbors and channels, calling upon more taxpayer's dollars for dredging. Siltation smothers shellfish and destroys the livelihood of fishermen. It muddies waters to the distaste of swimmers, water skiers, scuba divers, and sightseers, thus causing injury to the tourist and recreation economies. To this is added the irretrievable losses of the valuable topsoils and shoreline acreage washed away.

6.5 Defining the Coastal Zone

Mississippi's coastal zone must be defined on all sides to minimize the problems of the agencies given the responsibility of its management. Indeed, the Federal Coastal Zone Management Act of 1972 requires that this be done early in the process of establishing a program of management.

To the seaward, Mississippi's coastal zone boundary under Federal definitions coincides with the standard national boundaries as established by law, international convention, and decisions of the Supreme Court of the United States. In essence, sovereignty extends to the three-mile limit; the limit with respect to the seafloor is to the edge of the continental shelf, but is under Federal jurisdiction. The Mississippi Gulf Coast once was Spanish territory, and the state constitution speaks of the sovereignty extending seven leagues seaward of the barrier islands. However, in the case of the United States vs Louisiana, 363 U.S.1 (1960) it was held that the boundaries are three miles from the coast with the islands to be treated separately.

On the east, the boundary is the existing state boundary between Mississippi and Alabama as extended. On the west, the boundary between Mississippi and Louisiana is marked by the Pearl River. Beyond the river's mouth, the boundary is drawn in accordance with an agreement between the states of Louisiana and Mississippi based, it is said, upon the path of a freely drifting barrel launched from the Pearl River. The boundary so established is a great disadvantage to the citizens of Mississippi and has been challenged many times in court without success.

Landward, Mississippi is not unlike most other coastal states of the nation: the inner boundary of the coastal zone is undefined or inadequately defined for sound management. One approach is to define it at the mean high water level under normal conditions or under storm conditions. Other approaches have been to define the boundary at the "vegetation line", along a given topographic contour (e.g., 10 feet, 12.5 feet, etc.), or at a given horizontal distance inland from the mean high water level (e.g., 100 feet, 1000 yards, 2 miles etc.). Still another approach is to define it along the closest federal or state highway.

None of these approaches seems satisfactory. A more acceptable approach is to define the inland-most county lines of the coastal counties as the landward boundary of the coastal zone. This offers the advantages of coinciding with already existing political boundaries, existing scope of land use data, etc., but it may encounter strong opposition by those who consider it too all-inclusive. An alternate approach, then, may be to provide that the landward boundary be less definitive, dividing it into a band of intermediate interests and a band of minimal interests yet further inland. Even so, there must be some provision for the coastal zone management agency to have some voice in projects far inland that will influence the quality of the coastal zone. Another Pear River dam retarding fresh water flow into Mississippi Sound would be an example.

Each approach to the definition must be tailored to existing conditions and to the needs and requirements of the individual state. A decision must be made as to the definition of salt water and how far it extends inland or is felt in the influences of the ocean tides. Even so, there are problems as to how to treat occurrences or influences beyond the boundaries defined, but which have significant effect on the coastal zone, its resources, or its inhabitants.

Appendix D

VISITS AND CALLS

Visits and calls where made to a great number of people during the preparation of this document. Many useful facts, ideas, and suggestions were contributed to the individuals contacted. Thanks are due all those listed below, and to any others who were inadvertently omitted, for their beneficial contributions.

NAME	AGENCY	DATE
Mr. Ed May	Office of the Governor of the State of Mississippi Coordinator of State — Federal Programs	1-17-73
Mr. Wm. A. McGinnis	Mississippi Agricultural and Industrial Board, Marketing Council	1-17-73
Mr. Glen Wood	Mississippi Air and Water Pollution Control Commission	1-17-73
Mr. Donald J. Cuevas	Mississippi Power Co. (MMRC)	1-18-73
Mr. Robert E. Woodall	Hancock Bank, Gulfport	1-18-73
Mr. Jack Different	Gulf Regional Planning Commission Hancock County Port and Harbor Commission	1-18-73
	National Aeronautics and Space Administration, Mississippi Test Facility	1-18-73
*Mr. P.J. Mills	Louisiana Superport Authority	1-19-73
*Mr. J.A. Massey	Louisiana Offshore Oil Producers (LOOP)	1-19-73
Sen. Ben H. Stone	Mississippi Senate (MMRC)	12-27-72
Dr. Sidney D. Upham	Universities Marine Center (MMRC)	2-20-73
Hon. Tommy Gollott	Mississippi House of Representatives (MMRC)	12-27-72
Sen Wm. C. (Son) Rhodes	Mississippi Senate (MMRC)	12-27-72

NAME	AGENCY	DATE
Dr. Harold D. Howse	Gulf Coast Research Laboratory (MMRC)	12-28-72
Hon. Gerald Blessey	Mississippi House of Representatives (MMRC)	12-28-72
Dr. James Rucker	Mississippi Marine Resources Council	12-26-72
Mr. Jon H. Bennett	Jackson County Planning Commission	12-27-72
*Mr. Gordon Gulman	Mississippi Marine Resources Council	1-26-73
Mr. Robert Schmieg	Mississippi Marine Research Council	12-28-72
Mr. Robert Knecht	Office of Coastal Zone	1-4-73
Miss Judy Penna	Management, NOAA	
Mr. Jack Bails	Washington, D.C.	
Capt. Robert C. Engram	State Port Authority	1-18-73
Mr. A. F. Dantzler	Dantzler Ship and Barge Co. (MMRC)	1-18-73
Mr. Donald H. Inskip	Jackson County Port Authority	1-18-73
Mr. Richard A. Stokes	Gulf Islands National Seashort	1-19-73
Mr. James Chamberlain	U.S. Army Corps of Engineers, Mobile District	1-19-73
Mr. Stan Beebe	Coastal Plains Regional Commission, Washington, D.C.	1-12-73
*Mr. Hodges	Mississippi State Oil and Gas Board	1-10-73
*Mr. Leonard Boulter	Mississippi Boat and Water Safety Comm.	1-10-73
*Mr. Alvin Bicker	Mississippi Board of Geology	1-10-73
*Dr. Maraist	University of Mississippi, School of Law	1-10-73
*Mr. Lindsey	Mississippi Park System	1-10-73

NAME	AGENCY	DATE
*Mr. James Chamberlain	U.S. Army Corps of Engineers, Mobile District	1-10-73
*Mr. Lockhart	U.S. Army Corps of Engineers, South Atlantic Division	1-10-73
*Miss Linda Johnson	Pascagoula Chamber of Commerce	1-11-73
*Mrs. Rusking	Ocean Springs Chamber of Commerce	1-11-73
*Mrs. McCann	Biloxi Chamber of Commerce	1-11-73
*Mrs. McComiskey	Hancock County Chamber of Commerce	1-11-73
*Mr. Oakes	Gulfport Chamber of Commerce	1-11-73
*Mr. James Brooker	National Marine Fisheries Service, NOAA Washington, D.C.	1-11-73
*Dr. Daniel A. Panshin	Office of Sea Grant Programs, NOAA Washington, D.C.	1-11-73
*Mr. John Martinere	Biloxi Port Commission	1-25-73
*Miss Abshier	Mississippi Agricultural and Industrial Board	1-25-73
*	Harrison County Development Commission	1-25-73
*Mr. C. Freeman	Mississippi Game and Fish Commission	1-10-73
*Mr. W. Moore	Mississippi Geological Economic, and Topographic Survey	1-10-73
*Mr. S. Gharret	National Marine Fisheries Service, NOAA	1-10-73
*Mr. L. Sullivan	Mississippi Wildlife Federation	1-17-73
Mr. S. Smith	U.S. Soil Conservation Service	1-18-73
Mr. C. Lyles	Gulf Coast Research Laboratory	1-17-73
Mr. J. Colson	Gulf Coast Fisheries Commission	1-16-73
Mr. W. Demoran	Mississippi Marine Conservation	1-17-73

NAME	AGENCY	DATE
Mr. R. Roe	National Marine Fisheries Service, NOAA	1-18-73
*Mr. Harry D. Owen	Mississippi Agriculture and Industry Board	1-26-73
*Dr. Bobby E. Craven	University of Southern Mississippi (MMRC)	1-26-73
*Dr. E. E. Thrash	Board of Trustees, Mississippi Institutes of Higher Learning (MMRC)	1-26-73
*Mr. Clyde E. Wilson	Marathon Le Tourneau, Inc.	1-29-73
*Dr. J. E. Thomas	Institute of Engineering Technology	1-29-73
*Mr. H. Hardin Shattuck	Sea Coast Electric Power Association (MMRC)	1-29-73
Mr. Earl Koskela	Mississippi Marine Resources Council	1-30-73
Mr. Austin Bricker	Office of the Governor, of the State of Mississippi Coordinator of State-Federal Programs	1-31-73
*Miss Judy Penna	Federal-State Relations Office, NOAA	1-7-73 2-13-73
*Mr. Dick Gardner	Office of Coastal Zone Management, NOAA	1-7-73 2-13-73
*Mr. Stanley Bilinski	Economic Development Administration	12-18-72
*Mrs. Wiedle	Department of Housing and Urban Development, Mississippi Desk	12-18-72
*Mr. Ronald Carter	Department of Health, Education, and Welfare Office of the Sect'y	12-19-72
*Mr. Bill Simpson	Legislative Aide to U.S. Senator Eastland (D, Miss)	12-19-72
*Mr. Buck Burgess	Office of Economic Opportunity	12-20-72
*Mr. Tom Snyder	Office of Management and Budget	12-20-72
*Mrs. Corbley	National Technical Information Service	12-20-72

*Telephone Contact

Appendix E

REFERENCE SOURCES

- Dr. John M. King & Associates (1971) The Regional Plan for Open Spaces, Recreation, and Environmental Appearance. Prepared for Gulf Regional Planning Commission, Gulfport, Miss.
- _____(1971) Plan for Survey on Hurricane Protection and Beach Erosion Control for Hancock, Harrison, and Jackson, Miss. Prepared 22 February, 1971 for U.S. Army Corps of Engineers, Mobile District, Mobile, Alabama
- Ed Lindstrom Asso. () Downtown Biloxi, Its Plan for Revitalization and Economic Redevelopment. Prepared for Urban Renewal Agency, Biloxi, Mississippi.
- _____(1970) Greater Port of Pascagoula, Public Terminal Facilities and Industrial Development. Prepared for Jackson County Port Authority, Pascagoula, Miss.
- Michael Baker, Jr., Inc. (1972) Public Hearing on Pascagoula Harbor, Mississippi. Prepared for Jackson County Port Authority, Pascagoula, Miss.
- _____(1971) The State Port of Gulfport, Mississippi, U.S.A. Prepared for Mississippi State Port Authority, Miss.
- _____(1972) "Where to Go-What to See and What to Do on the Beautiful Mississippi Gulf Coast" Down South Magazine
- _____(1972) Data Package, Compiled for Biloxi Chamber of Commerce, Biloxi, Miss.
- _____(1972) Pascagoula and Moss Point Factbook. Prepared for Pascagoula-Moss Point Area Chamber of Commerce, Pascagoula, Miss.
- _____(1973) The Budget of the United States Government: Fiscal Year 1974, Appendix. G.P.O., Washington, D.C.
- _____(1972) The Budget of the United States Government: Fiscal Year 1973, Appendix G.P.O., Washington, D.C.
- _____(1972) Tools for Coastal Zone Management, Proceedings of the Conference, February 14-15, 1972, Marine Technology Society, Washington, D.C.

- Brahtz J.F.P., ed. (1972) Coastal Zone Management: Multiple Use with Conservation, John Wiley & Sons, NYC.
- _____(1969) Coastal Plains Regional Commission, Annual Report for 1968; CPRC, Washington, D.C.
- _____(1971) Water Resources Development in Mississippi, U.S. Army Corps of Engineers Department of the Army, Lower Mississippi Valley Division, Vicksburg, Miss.
- Isaacs, Reginald R. and Nash-Vigier, Inc. (1971) Evaluation and Updating of the 1967 Study Design, Prepared in collaboration with the staff of the Gulf Regional Planning Commission for the Commission, Miss. p-89
- _____(1972) Port Bienville Industrial Park, brochure prepared with assistance of Mississippi Research and Development Center Hancock County Port and Harbor Commission
- _____(1972) Fisheries of the United States, 1971, NOAA NMFS CFS-5900 U.S. Department of Commerce
- _____(1972) Mississippi Landings, Annual Summary 1971, NOAA XCFSA-5921 GC-3
- _____(1971) Mississippi Landings, Annual Summary 1970, NOAA XCFSA-5770 GC-3 U.S. Department of Commerce
- _____(1970) National Estuary Study, Vol. 1 U.S. Department of the Interior Fish and Wildlife Service
- Taylor, Calvin L., Hosemann, Paul C., Jr. (1970) A Preliminary Evaluation of Redevelopment Alternatives for the Seafood Industry on the Mississippi Gulf Coast, Mississippi Research and Development Center.
- _____(1971) Plan for Open Space, Recreation and Environmental Appearance for Hancock County, Miss., CRPC-OP-72-3 Gulf Regional Planning Commission
- _____(1972) Plan for Open Space, Recreation, and Environmental Appearance for Jackson County, Mississippi, GRPC-OPJA-72-4 Gulf Regional Planning Commission
- _____(1971-1972) Federal Grants-in-Aid in Mississippi, Office of the Governor, State of Mississippi, Nos. 16 through 29 Federal-State Programs
- _____(1973) Fourth Annual Report, Federal-State Programs Office of the Governor, State of Miss.
- _____(1968) The Constitution of the State of Mississippi

- _____(1972) Federal Outlays in Mississippi, Office of Economic Opportunity, PB-207 530-25 U.S. Department of Commerce
- _____(1972) Financial Assistance by Geographic Area, Region IV, Atlanta, Georgia, Fiscal Year 1972 DHEW Publication No. (OS) 72-12 U.S. Department of Health, Education and Welfare
- _____(1971) Financial Assistance by Geographic Area, Region IV, Fiscal Year 1971 U.S. Department of Health, Education & Welfare
- Fisher, W.L., McGowen, H.H., Brown, L.F. Jr., Groat C.G., (1972) Environmental Geologic Atlas of the Texas Coastal Zone - Galveston - Houston Area. Prepared by the Bureau of Economic Geology, The University of Texas at Austin.
- _____(1971) Fourth Annual Report 1971, The California Marine Environment California Advisory Commission on Marine and Coastal Resources
- Ware, Lewis, Eaton, Architects, Engineers, Planners, (1971) Population and Economic Study Pascagoula, Mississippi. Prepared for Community and Area Development Division, Mississippi Research and Development Center, Jackson, Mississippi.
- Ware, Lewis, Eaton, Architects, Engineers, Planners (1971) Existing Land Use Study Neighborhood Analyses, Pascagoula, Mississippi. Prepared for Community and Area Development Division, Mississippi Research and Development Center, Jackson, Mississippi.
- Ware, Lewis, Eaton, Architects, Engineers, Planners (1972) Major Thoroughfares Plan, Community Facilities Plan and Future Land Use Plan, Pascagoula, Mississippi. Prepared for Community and Area Development Division, Mississippi Research and Development Center, Jackson, Mississippi.
- Gunter, Gordon (ed. Gulf Research Reports, 1962-1972 inclusive. Gulf Coast Research Laboratory)
- _____(1971) Regional Land Use Plan for Hancock, Harrison, Jackson and Pearl River Counties, Mississippi. Gulf Regional Planning Commission
- Gruen Gruen and Associates - Sedway/Cook, (1971) Approaches Towards a Land Use Allocation System for California's Coastal Zone, Report to the Department of Navigation and Ocean Development of the Resources Agency, State of California.
- _____(1972) General Social and Economic Characteristics, Mississippi, 1970 Census of Population PC (1) -C26 Miss. U.S. Department of Commerce, Bureau of the Census
- _____(1971) General Population Characteristics, Mississippi, 1970 Census of Population, PC(1) -B26 Miss. U.S. Department of Commerce

_____ (1972) Detailed Characteristics, Mississippi, 1970 Census of Population, PC(1)-D26 Miss
U.S. Department of Commerce

_____ (1972) County Business Patterns, 1971, Mississippi CBP-71-26 U.S. Department of
Commerce

_____ (1971) From Potential and Promise to Action: Coastal Plains Regional Commission, 1970
Annual Report; CPRC, Washington, D.C.

_____ (1972) Coastal Plains Regional Commission, 1971 Annual Report; CPRC Washington,
D.C.

_____ (1971) Report on the National Shoreline Study. Department of Army, Corps of
Engineers, Washington, D.C.

Kay W. (1972) Conservation Directory - 1972, National Wildlife Federation, Washington, D.C.

Ditton, R.B. (1972) The Social and Economic Significance of Recreation Activities in the Marine
Environment, Univ. of Wisconsin Sea Grant Program Tech. Rep. No. 11, Univ. of Wisc.,
Green Bay, Wisc.

_____ (1972) Environmental Guide for Seven U.S. Ports and Harbor Approaches, National
Oceanic and Atmospheric Administration, National Climatic Center, Asheville, N.C.

U.S. Army Corps of Engineers (1971) National Shoreline Study, Regional Inventory Report,
South Atlantic - Gulf Region. National Technical Information Service, Springfield, Va.

_____ (1964) Gulf Intracoastal Waterway, U.S. Army Corps of Engineers, Mobile, Ala.

_____ (1971) Water Resources Development in Mississippi, U.S. Army Corps of Engineers,
Vicksburg, Miss.

_____ (1972) Mississippi Power Company Community Survey Series:

Bay St. Louis
Pass Christian
Long Beach
Gulfport

Biloxi
Ocean Springs
Pascagoula
Moss Point

Mississippi Power Company, Gulfport, Miss.

_____ () The People of Harrison County Invite You to Evaluate Harrison County
Development Commission, Gulfport, Miss.

Univ. of S. Miss. (1972) Travel Industry By County, Addendum to Travel in Mississippi - 1971.
Prepared for Travel Dept., Mississippi Agricultural and Industrial Board, Jackson, Miss

NOAA, National Ocean Survey Charts:

C&GS-1003	1267	414
C&GS-1115	1268	874SC
C&GS-1116	1270	876SC
		878SC

_____ (1972) Catalog of Federal Domestic Assistance, Prepared by the Office of Management and Budget, Washington, D.C.

_____ (1969) Out Nation and the Sea, Report of the Commission on Marine Science, Engineering, and Resources, G.P.O., Washington, D.C.

_____ (1969) Science and Environment, Volume 1 of Panel Reports of the Commission on Marine Science, Engineering, and Technology, G.P.O., Washington, D.C.

_____ (1969) Industry and Technology, Keys to Oceanic Development, Volume 2 of Panel Reports of the Commission on Marine Science, Engineering, and Technology, G.P.O., Washington, D.C.

_____ (1965) Pollution Studies on Coastal Streams of Mississippi, Miss. Game & Fish Comm., Jackson, Miss.

_____ (1964) Pollution Studies on Pascagoula River, Miss. Game & Fish Comm., Jackson, Miss.

_____ (1969) National Estuarine Pollution Study, U.S. Dept, of Interior, Federal Water Pollution Control Administration

_____ (1971) Cooperative Gulf of Mexico Estuarine Inventory and Study, Louisiana. Louisiana Wildlife & Fisheries Comm.

_____ (1971) Proposal for Continuation of Sea Grant Pre-Institutional Support, Universities Marine Center, Ocean Springs, Miss.

_____ (1972) Mississippi, Alabama Coherent Sea Grant Program, Universities Marine Center, Ocean Springs, Miss.

_____ (1964) Soil Interpretations for the Mississippi Gulf Coastal Flatwoods, U.S. Dept. of Agriculture, Soil Cons. Serv.

Appendix F

TITLE III - MANAGEMENT OF THE COASTAL ZONE

SHORT TITLE

Sec. 301. This title may be cited as the "Coastal Zone Management Act of 1972".

CONGRESSIONAL FINDINGS

Sec. 302. The Congress finds that —

(a) There is a national interest in the effective management, beneficial use, protection, and development of the coastal zone;

(b) The coastal zone is rich in a variety of natural, commercial, recreational, industrial, and esthetic resources of immediate and potential value to the present and future well-being of the Nation;

(c) The increasing and competing demands upon the lands and waters of our coastal zone occasioned by population growth and economic development, including requirements for industry, commerce, residential development, recreation, extraction of mineral resources and fossil fuels, transportation and navigation, waste disposal, and harvesting of fish, shellfish, and other living marine resources, have resulted in the loss of living marine resources, wildlife, nutrient-rich areas, permanent and adverse changes to ecological systems, decreasing open space for public use, and shoreline erosion;

(d) The coastal zone, and the fish, shellfish, other living marine resources, and wildlife therein, are ecologically fragile and consequently extremely vulnerable to destruction by man's alterations;

(e) Important ecological, cultural, historic, and esthetic values in the coastal zone which are essential to the well-being of all citizens are being irretrievably damaged or lost;

(f) Special natural and scenic characteristics are being damaged by ill-planned development that threatens these values;

(g) In light of competing demands and the urgent need to protect and to give high priority to natural systems in the coastal zone, present state and local institutional arrangements for planning and regulating land and water uses in such areas are inadequate; and

(h) The key to more effective protection and use of the land and water resources of the coastal zone is to encourage the states to exercise their full authority over the lands and waters in the coastal zone by assisting the states, in cooperation with Federal and local governments and other vitally affected interests, in developing and land and water use

programs for the coastal zone, including unified policies, criteria, standards, methods, and processes for dealing with land and water use decisions of more than local significance.

DECLARATION OF POLICY

Sec. 303. The Congress finds and declares that it is the national policy (a) to preserve, protect, develop, and where possible, to restore or enhance, the resources of the Nation's coastal zone for this and succeeding generations, (b) to encourage and assist the states to exercise effectively their responsibilities in the coastal zone through the development and implementation and management programs to achieve wise use of the land and water resources of the coastal zone giving full consideration to ecological, cultural, historic, and esthetic values as well as to needs for economic development, (c) for all Federal agencies engaged in programs affecting the coastal zone to cooperate and participate with state and local governments and regional agencies in effectuating the purposes of this title, and (d) to encourage the participation of the public, of Federal, state, and local governments and of regional agencies in the development of coastal zone management programs. With respect to implementation of such management programs, it is the national policy to encourage cooperation among the various state and regional agencies including establishment of interstate and regional agreements, cooperative procedures, and joint action particularly regarding environmental problems.

DEFINITIONS

Sec. 304. For the purposes of this title —

(a) "Coastal zone" means the coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the waters therein and thereunder), strongly influenced by each other and in proximity to the shorelines of the several coastal states, and includes transitional and intertidal areas, salt marshes, wetlands, and beaches. The zone extends, in Great Lakes waters, to the international boundary between the United States and Canada and, in other areas, seaward to the outer limit of the United States territorial sea. The zone extends inland from the shorelines only to the extent necessary to direct and significant impact on the coastal waters. Excluded from the coastal zone are lands the use of which is by law subject solely to the discretion of or which is held in trust by the Federal Government, its officers or agents.

(b) "Coastal waters" means (1) in the Great Lakes area, the waters within the territorial jurisdiction of the United States consisting of the Great Lakes, their connecting waters, harbors, roadsteads, and estuary-type areas such as bays, shallows, and marshes and (2) in other areas, those waters, adjacent to the shorelines, which contain a measurable quantity or percentage of sea water, including, but not limited to, sounds, bays, lagoons, bayous, ponds, and estuaries.

(c) "Coastal state" means a state of the United States in, or bordering on, the Atlantic, Pacific, or Arctic Ocean, the Gulf of Mexico, Long Island Sound, or one or more of the Great Lakes. For the purpose of this title, the term also includes Puerto Rico, the Virgin Islands, Guam, and American Samoa.

(d) "Estuary" means that part of a river or stream or other body of water having unimpaired connection with the open sea, where the sea water is measurably diluted with fresh water derived from land drainage. The term includes estuary-type areas of the Great Lakes.

(e) "Estuarine sanctuary" means a research area which may include any part or all of an estuary, adjoining transitional areas, and adjacent uplands, constituting to the extent feasible a natural unit, set aside to provide scientists and students the opportunity to examine over a period of time the ecological relationships within the area.

(f) "Secretary" means the Secretary of Commerce.

(g) "Management program" includes, but is not limited to, a comprehensive statement in words, maps, illustrations, or other media of communication, prepared and adopted by the state in accordance with the provisions of this title, setting forth objectives, policies, and standards to guide public and private uses of lands and waters in the coastal zone.

(h) "Water use" means activities which are conducted in or on the water; but does not mean or include the establishment of any water quality standard or criteria or the regulation of the discharge or runoff of water pollutants except the standards, criteria, or regulations which are incorporated in any program as required by the provisions of section 307(f).

(i) "Land use" means activities which are conducted in or on the shorelands within the coastal zone, subject to the requirements outlined in Sec. 307(g).

MANAGEMENT PROGRAM DEVELOPMENT GRANTS

Sec. 305. (a) The Secretary is authorized to make annual grants to any coastal state for the purpose of assisting in the development of a management program for the land and water resources of its coastal zone.

(b) Such management program shall include:

(1) an identification of the boundaries of the coastal zone subject to the management program;

(2) a definition of what shall constitute permissible land and water uses within the coastal zone which have a direct and significant impact on the coastal waters;

(3) an inventory and designation of areas of particular concern within the coastal zone;

(4) an identification of the means by which the state proposes to exert control over the land and water uses referred to in paragraph (2) of this subsection, including a listing of relevant constitutional provisions, legislative enactments, regulations, and judicial decisions;

(5) broad guidelines on priority of uses in particular areas, including specifically those uses of lowest priority;

(6) a description of the organizational structure proposed to implement the management program, including the responsibilities and interrelationships of local, areawide, state, regional, and interstate agencies in the management process.

(c) The grants shall not exceed 66 2/3 per centum of the costs of the program in any one year and no state shall be eligible to receive more than three annual grants pursuant to this section. Federal funds received from other sources shall not be used to match such grants. In order to qualify for grants under this section, the state must reasonably demonstrate to the satisfaction of the Secretary that such grants will be used to develop a management program consistent with the requirements set forth in section 306 of this title. After making the initial grant to a coastal state, no subsequent grant shall be made under this section unless the Secretary finds that the state is satisfactorily developing such a management program.

(d) Upon completion of the development of the state's management program to the Secretary for review and approval pursuant to the provisions of section 306 of this title, or such other action as he deems necessary. On final approval of such program by the Secretary, the state's eligibility for further grants under this section shall terminate, and the state shall be eligible for grants under section 306 of this title.

(e) Grants under this section shall be allocated to the states based on rules and regulations promulgated by the Secretary: *Provided, however,* That no management program development grant under this section shall be made in excess of 10 per centum nor less than 1 per centum of the total amount appropriated to carry out the purposes of this section.

(f) Grants or portions thereof not obligated by a state during the fiscal year immediately following, shall revert to the Secretary, and shall be added by him to the funds available for grants under this section.

(g) With the approval of the Secretary, the state may allocate to a local government, to an areawide agency designated under section 204 of the Demonstration Cities and Metropolitan Development Act of 1966, to a regional agency, or to an interstate agency, a portion of the grant under this section, for the purpose of carrying out the provisions of this section.

(h) The authority to make grants under this section shall expire on June 30, 1975.

ADMINISTRATIVE GRANTS

Sec. 306

(a) The Secretary is authorized to make annual grants to any coastal state for not more than 66 2/3 per centum of the costs of administering the state's management program, if he approves such program in accordance with subsection (c) hereof. Federal funds received from other sources shall not be used to pay the state's share of costs.

(b) Such grants shall be allocated to the states with approved programs based on rules and regulations promulgated by the Secretary which shall take into account the extent and nature of the shoreline and area covered by the plan, population of the area, and other relevant factors: *Provided, however,* That no annual administrative grant under this section shall be made in excess of 10 per centum nor less than 1 per centum of the total amount appropriated to carry out the purposes of this section.

(c) Prior to granting approval of a management program submitted by a coastal state, the Secretary shall find that:

(1) The state has developed and adopted a management program for its coastal zone in accordance with rules and regulations promulgated by the Secretary, after notice, and with the opportunity of full participation by relevant Federal agencies, state agencies, local governments, regional organizations, port authorities, and other interested parties, public and private, which adequate to carry out the purposes of this title and is consistent with the policy declared in section 303 of this title.

(2) The state has:

(A) coordinated its program with local, areawide, and interstate plans applicable to areas within the coastal zone existing on January 1 of the year in which the state's management program is submitted to the Secretary, which plans have been developed by a local government, an areawide agency designated pursuant to regulations established under section 204 of the Demonstration Cities and Metropolitan Development Act of 1966, a regional agency, or an interstate agency; and

(B) established an effective mechanism for continuing consultation and coordination between the management agency designated pursuant to paragraph (5) of this subsection and with local governments, interstate agencies, regional agencies, and areawide agencies within the coastal zone to assure the full participation of such local governments and agencies in carrying out the purposes of this title.

(3) The state has held public hearings in development of the management program.

(4) The management program and any changes thereto have been reviewed and approved by the Governor

(5) The Governor of the state has designated a single agency to receive and administer the grants for implementing the management program required under paragraph (1) of this subsection.

(6) The state is organized to implement the management program required under paragraph (1) of this subsection.

(7) The state has the authorities necessary to implement the program, including the authority required under subsection (d) of this section.

(8) The management program provides for adequate consideration of the national interest involved in the siting of facilities necessary to meet requirements which are other than local in nature.

(9) The management program makes provision for procedures whereby specific areas may be designated for the purpose of preserving or restoring them for their conservation recreational, ecological, or esthetic values.

(d) Prior to granting approval of the management program, the Secretary shall find that the state, acting through its chosen agency or agencies, including local governments, areawide agencies designated under section 204 of the Demonstration Cities and Metropolitan Development Act of 1966, regional agencies, or interstate agencies, has authority for the management of the coastal zone in accordance with the management program. Such authority shall include power

(1) to administer land and water use regulations, control development in order to ensure compliance with the management program, and to resolve conflicts among competing uses; and

(2) to acquire fee simple and less than fee simple interests in lands, waters, and other property through condemnation or other means when necessary to achieve conformance with the management program.

(e) Prior to granting approval, the Secretary shall also find that the program provides:

(1) for any one or a combination of the following general techniques for control of land and water uses within the coastal zone;

(A) State establishment of criteria and standards for local implementation, subject to administrative review and enforcement of compliance;

(B) Direct state land and water use planning and regulation; or

(C) State administrative review for consistency with the management program of all development plans, projects, or land and water use regulations, including exceptions and variances thereto, proposed by any state or local authority or private developer, with power to approve or disapprove after public notice and an opportunity for hearings.

(2) for a method of assuring that local land and water use regulations within the coastal zone do not unreasonably restrict or exclude land and water uses of regional benefit.

(f) With the approval of the Secretary, a state may allocate to a local government, an areawide agency designated under section 204 of the Demonstration Cities and Metropolitan Development Act of 1966, a regional agency, or an interstate agency, a portion of the grant under this section for the purpose of carrying out the provisions of this section: Provided.

That such allocation shall not relieve the state of the responsibility for ensuring that any funds so allocated are applied in furtherance of such state's approved management program.

(g) The state shall be authorized to amend the management program. The modification shall be in accordance with the procedures required under subsection (c) of this section. Any amendment or modification of the program must be approved by the Secretary before additional administrative grants are made to the state under the program as amended.

(h) At the discretion of the state and with the approval of the Secretary, a management program may be developed and adopted in segments so that immediate attention may be devoted to those areas within the coastal zone which most urgently need management programs: Provided, That the state adequately procoordinate of the various segments of the management program into a single unified program and that the unified program will be completed as soon as is reasonably practicable.

INTERAGENCY COORDINATION AND COOPERATION

Sec. 307

(a) In carrying out his functions and responsibilities under this title, the Secretary shall consult with, cooperate with, and, to the maximum extent practicable, coordinate his activities with other interested Federal agencies.

(b) The Secretary shall not approve the management program submitted by a state pursuant to section 306 unless the views of Federal agencies principally affected by such program have been adequately considered. In case of serious disagreement between any Federal agency and the state in the development of the program the Secretary, in cooperation with Executive Office of the President, shall seek to mediate the differences.

(c)

(1) Each Federal agency conducting or supporting activities directly affecting the coastal zone shall conduct or support those activities in a manner which is, to the maximum extent practicable, consistent with approved state management programs.

(2) Any Federal agency which shall undertake any development project in the coastal zone of a state shall insure that the project is, to the maximum extent practicable, consistent with approved state management programs.

(3) After final approval by the Secretary of a state's management program, any applicant for a required Federal license or permit to conduct an activity affecting land or water uses in the coastal zone of that state shall provide in the application to the licensing or permitting agency a certification that the proposed activity complies with the state's approved program and that such activity will be conducted in a manner consistent with the program. At the same time, the applicant shall furnish to the state or its designated agency a copy of the certification, with all necessary information and data. Each coastal state shall establish procedures for public notice in the case of all such certification and to the

extent it deems appropriate, procedures for public hearings in connection therewith. At the earliest practicable time, state or its designated agency shall notify the Federal agency concerned that the state concurs with or objects to the applicant's certification. If the state or its designated agency fails to furnish the required notification within six months after receipt of its copy of the applicant's certification, the state's concurrence with the certification shall be conclusively presumed. No license or permit shall be granted by the Federal agency until the state or its designated agency has concurred with the applicant's certification or until by the state's failure to act, the concurrence is conclusively presumed, unless the Secretary, on his own initiative or upon appeal by the applicant, finds, after providing a reasonable opportunity for detailed comments from the Federal agency involved and from the state, that the activity is consistent with the objectives of this title or is otherwise necessary in the interest of national security.

(d) State and local governments submitting applications for Federal assistance under other Federal programs affecting the coastal zone shall indicate the views of the appropriate state or local agency as to the relationship of such activities to the approved management program for the coastal zone. Such applications shall be submitted and coordinated in accordance with the provisions of title IV of the Intergovernmental Coordination Act of 1968 (82 Stat. 1089), Federal agencies shall not approve proposed projects that are inconsistent with a coastal state's management program, except upon a finding by the Secretary that such project is consistent with the purposes of this title or necessary in the interest of national security.

(e) Nothing in this title shall be construed

(1) to diminish either Federal or state jurisdiction, responsibility or rights in the field of planning, development, or control of water resources, submerged lands, or navigable waters; nor to displace, supersede, limit, or modify any interstate compact or the jurisdiction or responsibility of any legally established joint or common agency of two or more states or of two or more states and the Federal Government; nor to limit the authority of Congress to authorize and fund projects;

(2) as superseding, modifying, or repealing existing laws applicable to the various Federal agencies; nor to affect the jurisdiction, powers, or prerogatives of the International Joint Commission, United States and Canada, the Permanent Engineering Board, and the United States operating entity or entities established pursuant to the Columbia River Basin Treaty, signed at Washington, January 17, 1961, or the International Boundary and Water Commission United States and Mexico.

(f) Notwithstanding any other provision of this title, nothing in this title shall in any way affect any requirement (1) established by the Federal Water Pollution Control Act, as amended, or the Clean Air Act, as amended, or (2) established by the Federal Government or by any State or local government pursuant to such Acts. Such requirements shall be incorporated in any program developed pursuant to this title and shall be the water pollution control and air pollution control requirements applicable to such program.

(g) When any state's coastal zone management program, submitted for approval or proposed for modification pursuant to section 306 of this title, includes requirements as to shorelands which also would be subject to any Federally supported national land use program which may be hereafter enacted, the Secretary, prior to approving such program, shall obtain the concurrence of the Secretary of the Interior, or such other Federal official as may be designated to administer the national land use program, with respect to that portion of the coastal zone management program affecting such inland areas.

PUBLIC HEARINGS

Sec. 308. All public hearings required under this title must be announced at least thirty days prior to the hearing date. At the time of the announcement, all agency materials pertinent to the hearings, including documents, studies, and other data, must be made available to the public for review and study. As similar materials are subsequently developed, they shall be made available to the public as they become available to the agency.

REVIEW OF PERFORMANCE

Sec. 309.

(a) The Secretary shall conduct a continuing review of the management programs of the coastal states and of the performance of each state.

(b) The Secretary shall have the authority to terminate any financial assistance extended under section 306 and to withdraw any unexpended portion of such assistance if (1) he determines that the state is failing to adhere to and is not justified in deviating from the program approved by the Secretary; and (2) the state has been given notice of the proposed termination and withdrawal and given an opportunity to present evidence of adherence or justification for altering its program.

RECORDS

Sec. 310.

(a) Each recipient of a grant under this title shall keep such records as the Secretary shall prescribe, including records which fully disclose the amount and disposition of the funds received under the grant, the total cost of the project or undertaking supplied by other sources, and such other records as will facilitate an effective audit.

(b) The Secretary and the Comptroller General of the United States, or any of their duly authorized representatives, shall have access for the purpose of audit and examination to any books, documents, papers, and records of the recipient of the grant that are pertinent to the determination that funds granted are used in accordance with this title.

during the preceding Federal fiscal year; (7) a summary of a coordinated national strategy and program for the Nation's coastal zone including identification and discussion of Federal, regional, state, and local responsibilities and functions therein; (8) a summary of outstanding problems arising in the administration of this title in order of priority; and (9) such other information as may be appropriate.

(b) The report required by subsection (a) shall contain such recommendations for additional legislation as the Secretary deems necessary to achieve the objectives of this title and enhance its effective operation.

RULES AND REGULATIONS

Sec. 314. The Secretary shall develop and promulgate, pursuant to section 553 of title 5, United States Code, after notice and opportunity for full participation by relevant Federal agencies, state agencies, local governments, regional organizations, port authorities, and other interested parties, both public and private, such rules and regulations as may be necessary to carry out the provisions of this title.

AUTHORIZATION OF APPROPRIATIONS

Sec. 315

(a) There are authorized to be appropriated

(1) the sum of \$9,000,000 for the fiscal year ending June 30, 1973 and for each of the fiscal years 1974 through 1977 for grants under section 305, to remain available until expended;

(2) such sums, not to exceed \$30,000,000, for the fiscal year ending June 30, 1974 and for each of the fiscal years 1975 through 1977, as may be necessary, for grants under section 306 to remain available until expended; and

(3) such sums, not to exceed \$6,000,000, for the fiscal year ending June 30, 1974, as may be necessary, for grants under section 312, to remain available until expended.

(b) There are also authorized to be appropriated such sums, not to exceed \$3,000,000, for fiscal year 1973 and for each of the four succeeding fiscal years, as may be necessary for administrative expenses incident to the administration of this title.

COASTAL ZONE
INFORMATION CENTER

NOAA COASTAL SERVICES CENTER LIBRARY



3 6668 14103 1999

HT
393
.M7
W47
1973